INDEX TO AUTHORS

A

ALLEN, F. H. See FU, KUNKEL, BRUSMAN, ALLEN, and FOTINO, 1108

ALLISON, ANTHONY C. See VIRELIZIER, ALLISON, and SCHILD, 1571

—. See VIRELIZIER, POSTLETHWAITE, SCHILD, and ALLISON, 1559

ALTER, BARBARA J., and BACH, FRITZ H. Role of *H-2* lymphocyte-defined and serologically-defined components in the generation of cytotoxic lymphocytes, 1410

ANDERSSON, JAN, BUXBAUM, JOEL, CITRONBAUM, RONALD, DOUGLAS, STEVEN, FORNI, LUCIANA, MELCHERS, FRITZ, PERNIS, BENVENUTO, and STOTT, DAVID. IgM-producing tumors in the BALB/c mouse. A model for B-cell maturation, 742

ANDRES, GIUSEPPE A. See BRENTJENS, O'CONNELL, PAWLOWSKI, HSU, and ANDRES, 105

AOKI, TADAO. See CHIECO-BIANCHI, COLOMBATTI, COLLAVO, SENDO, AOKI, and FISCHINGER, 1162

ARMERDING, DIETER, and KATZ, DAVID H. Activation of T and B lymphocytes in vitro. II. Biological and biochemical properties of an allogeneic effect factor (AEF) active in triggering specific B lymphocytes, 19

—, SACHS, DAVID H., and KATZ, DAVID H. Activation of T and B lymphocytes in vitro. III. Presence of Ia determinants on allogeneic effect factor, 1717

ARNOLD, KAREN. See DAVIS and ARNOLD, 159

ASSELINEAU, JEAN. See ROSENSTREICH, ASSELINEAU, MERGENHAGEN, and NOWOTNY, 1404

AUGUST, J. T. See YOSHIKI, MELLORS, STRAND, and AUGUST, 1011

AUSTEN, K. FRANK. See FEARON, AUSTEN, and RUDDY, 426

—. See LEWIS, WASSERMAN, GOETZL, and AUSTEN, 1133

—. See WINTROUB, GOETZL, and AUSTEN, 812

B

BACH, FRITZ H. See ALTER and BACH 1410

—. See SCHENDEL and BACH, 1534

BACH, M. L. See VAN DEN TWEEL, VRIESENDORP, TERMIJTELEN, WESTBROEK, BACH, and VAN ROOD, 825

BAJAJ, SATYA P. See GLEICH, LOEGERING, KUEPPERS, BAJAJ, and MANN, 313

BAKER, P. C. See WOFSY, BAKER, THOMPSON, GOODMAN, KIMURA, and HENRY, 523

BASTEN, A., MILLER, J. F. A. P., SPRENT, J., and CHEERS, C. Cell-to-cell interaction in the immune response. X. T-cell-dependent suppression in tolerant mice, 199

BECHTOL, KATHLEEN B., FREED, JOHN H., HERZENBERG, LEONARD A., and MCDEVITT, HUGH O. Genetic control of the antibody response to poly-L(Tyr,Glu)-poly-D,L-Ala--poly-L-Lys in C3H↔CWB tetraparental mice, 1660

BECKERDITE, SUSAN, MOONEY, CAROLYN, WEISS, J., FRANSON, R., and ELSBACH, PETER. Early and discrete changes in permeability of *Escherichia coli* and certain other gram-negative bacteria during killing by granulocytes. 396

BENACERRAF, BARUJ, KAPP, JUDITH A., PIERCE, CARL W., and KATZ, DAVID H. Genetic control of immune responses in vitro. IV. Conditions for cooperative interactions between nonresponder parental B cells and primed (responder × nonresponder) F_1 T cells in the development of an antibody response under *Ir* gene control in vitro, 185

—. See DORF, LILLY, and BENACERRAF, 859

—. See KAPP, PIERCE, and BENACERRAF, 172

—. See KAPP, PIERCE, SCHLOSSMAN, and BENACERRAF, 648

—. See KATZ, DORF, and BENACERRAF, 290

—. See PIERCE, KAPP, SOLLIDAY, DORF, and BENACERRAF, 921

BENNETT, J. CLAUDE. See HURST, VOLANAKIS, HESTER, STROUD, and BENNETT, 1117

BEN-SASSON, SHLOMO Z., SHEVACH, ETHAN, GREEN, IRA, and PAUL, WILLIAM E. Alloantiserum-induced inhibition of migration inhibition factor production in immune response gene-controlled immune systems, 383

BENSON, MERRILL D. See SKINNER, CATHCART, COHEN, and BENSON, 871

BENTWICH, Z. See POLLIACK, FU, DOUGLAS, BENTWICH, LAMPEN, and DE HARVEN, 146

BERTOLINI, L. See REVOLTELLA, BERTOLINI, PEDICONI, and VIGNETI, 437

BINZ, HANS, LINDENMANN, JEAN, and WIGZELL, HANS. Cell-bound receptors for alloantigens on normal lymphocytes. II. Antialloantibody serum contains specific factors reacting with relevant immunocompetent T lymphocytes, 731

BLACK, S. J., and INCHLEY, C. J. Characteristics of immunological memory in mice. I. Separate early generation of cells mediating IgM and IgG memory to sheep erythrocytes, 333

BLAESE, R. MICHAEL, WEIDEN, PAUL L., KOSKI, IRMA, and DOOLEY, NANCY. Infectious agammaglobulinemia: transmission of immunodeficiency with grafts of agammaglobulinemic cells, 1097

BLOOM, BARRY R. See HENNEY, GAFFNEY, and BLOOM, 837
BLUESTEIN, HARRY G. Alloantiserum-mediated suppression of histocompatibility-linked *Ir*-gene-controlled immune responses. Suppressive effects of IgG fragments derived from alloantisera, 481
BODEL, PHYLLIS. Studies on the mechanism of endogenous pyrogen production. III. Human blood monocytes, 954
BOKISCH, VIKTOR A., and SOBEL, ALAIN T. Receptor for the fourth component of complement on human B lymphocytes and cultured human lymphoblastoid cells, 1336
—. See THEOFILOPOULOS, DIXON, and BOKISCH, 877
—. See THEOFILOPOULOS, WILSON, BOKISCH, and DIXON, 1230
BRÆNDSTRUP, OTTO. See NIELSEN, JENSEN, BRÆNDSTRUP, and WERDELIN, 1260
—. See WERDELIN, BRÆNDSTRUP, and PEDERSEN, 1245
BRENTJENS, JAN R., O'CONNELL, DAVID W., PAWLOWSKI, IRENE B., HSU, KONRAD C., and ANDRES, GIUSEPPE A. Experimental immune complex disease of the lung. The pathogenesis of a laboratory model resembling certain human interstitial lung diseases, 105
BRILES, DAVID E. See SCHROER, BRILES, VAN BOXEL, and DAVIE, 1416
BRINSTER, R. L. The effect of cells transferred into the mouse blastocyst on subsequent development, 1049
BRUNNER, K. THEODOR. See CEROTTINI, ENGERS, MACDONALD, and BRUNNER, 703
—. See MACDONALD, CEROTTINI, and BRUNNER, 1511
—. See MACDONALD, ENGERS, CEROTTINI, and BRUNNER, 718
BRUSMAN, H. P. See FU, KUNKEL, BRUSMAN, ALLEN, and FOTINO, 1108
BUXBAUM, JOEL. See ANDERSSON, BUXBAUM, CITRONBAUM, DOUGLAS, FORNI, MELCHERS, PERNIS, and STOTT, 742

C

CAMPBELL, ROSALIE. See MUNRO, TAUSSIG, CAMPBELL, WILLIAMS, and LAWSON, 1579
CANTOR, HARVEY, and JANDINSKI, JOHN. The relationship of cell division to the generation of cytotoxic activity in mixed lymphocyte culture, 1712
CATHCART, EDGAR S. See SKINNER, CATHCART, COHEN, and BENSON, 871
CEBRA, JOHN J. See JONES and CEBRA, 966
—. See JONES, CRAIG, CEBRA, and HERZENBERG, 452
CEROTTINI, JEAN-CHARLES, ENGERS, HOWARD D., MACDONALD, H. ROBSON, and BRUNNER, K. THEODOR. Generation of cytotoxic T lymphocytes in vitro. I. Response of normal and immune mouse spleen cells in mixed leukocyte cultures, 703
—. See MACDONALD, CEROTTINI, and BRUNNER, 1511
—. See MACDONALD, ENGERS, CEROTTINI, and BRUNNER, 718
CHEERS, C. See BASTEN, MILLER, SPRENT, and CHEERS, 199
CHESEBRO, BRUCE, WEHRLY, KATHY, and STIMPFLING, JACK. Host genetic control of recovery from Friend leukemia virus-induced splenomegaly. Mapping of a gene within the major histocompatibility complex, 1457
CHESS, LEONARD. See ROCKLIN, MACDERMOTT, CHESS, SCHLOSSMAN, and DAVID, 1303
CHIECO-BIANCHI, LUIGI, COLOMBATTI, ALFONSO, COLLAVO, DINO, SENDO, FUJIRO, AOKI, TADAO, and FISCHINGER, PETER J. Tumor induction by murine sarcoma virus in AKR and C58 mice. Reduction of tumor regression associated with appearance of Gross leukemia virus pseudotypes, 1162
CHISARI, FRANCIS V., and EDGINGTON, THOMAS S. Human T lymphocyte "E" rosette function. I. A process modulated by intracellular cyclic AMP, 1122
CHOI, YONG SUNG, and JENSON, JAMES C. Concanavalin A binding proteins of lymphoid cell surface, 597
CITRONBAUM, RONALD. See ANDERSSON, BUXBAUM, CITRONBAUM, DOUGLAS, FORNI, MELCHERS, PERNIS, and STOTT, 742
CLAFLIN, J. LATHAM, and DAVIE, JOSEPH M. Clonal nature of the immune response to phosphorylcholine. IV. Idiotypic uniformity of binding site-associated antigenic determinants among mouse antiphosphorylcholine antibodies, 673
CLAGETT, JAMES A., WILSON, CURTIS B., and WEIGLE, WILLIAM O. Interstitial immune complex thyroiditis in mice. The role of antibody to thyroglobulin, 1439
COCHRANE, CHARLES G. See MORRISON and COCHRANE, 797
COHEN, ALAN S. See SHIRAHAMA and COHEN, 1102
—. See SKINNER, CATHCART, COHEN, and BENSON, 871
COHN, ZANVIL A. See EDELSON and COHN, 1364, 1387
—. See GORDON, UNKELESS, and COHN, 995
COLLAVO, DINO. See CHIECO-BIANCHI, COLOMBATTI, COLLAVO, SENDO, AOKI, and FISCHINGER, 1162
COLOMBATTI, ALFONSO. See CHIECO-BIANCHI, COLOMBATTI, COLLAVO, SENDO, AOKI, and FISCHINGER, 1162
COOPER, NEIL R. See OLDSTONE, COOPER, and LARSON, 549
—. See PELLEGRINO, FERRONE, COOPER, DIERICH, and REISFELD, 578
CRAIG, SUSAN W. See JONES, CRAIG, CEBRA, and HERZENBERG, 452

CROCE, CARLO M., and KOPROWSKI, HILARY. Somatic cell hybrids between mouse peritoneal macrophages and SV40-transformed human cells. I. Positive control of the transformed phenotype by the human chromosome 7 carrying the SV40 genome, 1221
CROKER, BYRON P., JR., DEL VILLANO, BERT C., JENSEN, FRED C., LERNER, RICHARD A., and DIXON, FRANK J. Immunopathogenicity and oncogenicity of murine leukemia viruses. I. Induction of immunologic disease and lymphoma in (BALB/c × NZB)F_1 mice by Scripps leukemia virus, 1028

D

DAVID, C. S. See FRELINGER, NIEDERHUBER, DAVID, and SHREFFLER, 1273
DAVID, JOHN R. See ROCKLIN, MACDERMOTT, CHESS, SCHLOSSMAN, and DAVID, 1303
DAVIE, JOSEPH M. See CLAFLIN and DAVIE, 673
—. See SCHROER, BRILES, VAN BOXEL, and DAVIE, 1416
DAVIS, CHARLES E., and ARNOLD, KAREN. Role of meningococcal endotoxin in meningococcal purpura, 159
DECARY, FRANCINE. See RUBINSTEIN, DECARY, and STREUN, 591
DE HARVEN, E. See POLLIACK, FU, DOUGLAS, BENTWICH, LAMPEN, and DE HARVEN, 146
DEL VILLANO, BERT C. See CROKER, DEL VILLANO, JENSEN, LERNER, and DIXON, 1028
DICKLER, HOWARD B. Studies of the human lymphocyte receptor for heat-aggregated or antigen-complexed immunoglobulin, 508
—., and SACHS, DAVID H. Evidence for identity or close association of the Fc receptor of B lymphocytes and alloantigens determined by the *Ir* region of the *H-2* complex, 779
DIERICH, MANFRED P. See PELLEGRINO, FERRONE, COOPER, DIERICH, and REISFELD, 578
DIXON, FRANK J. See CROKER, DEL VILLANO, JENSEN, LERNER, and DIXON, 1028
—. See THEOFILOPOULOS, DIXON, and BOKISCH, 877
—. See THEOFILOPOULOS, WILSON, BOKISCH, and DIXON, 1230
DOENHOFF, MICHAEL. See GREAVES, JANOSSY, and DOENHOFF, 1
DOOLEY, NANCY. See BLAESE, WEIDEN, KOSKI, and DOOLEY, 1097
DORF, MARTIN E., LILLY, FRANK, and BENACERRAF, BARUJ. Characterization of a new intra-*H-2* recombinant. Separation of the *Ir-RE* and *Ir-GLT* genes, 859
—. See KATZ, DORF, and BENACERRAF, 290
—. See PIERCE, KAPP, SOLLIDAY, DORF, and BENACERRAF, 921
DOUGLAS, S. D. See POLLIACK, FU, DOUGLAS, BENTWICH, LAMPEN, and DE HARVEN, 146
DOUGLAS, STEVEN. See ANDERSSON, BUXBAUM, CITRONBAUM, DOUGLAS, FORNI, MELCHERS, PERNIS, and STOTT, 742

E

EDELSON, PAUL J., and COHN, ZANVIL A. Effects of concanavalin A on mouse peritoneal macrophages. I. Stimulation of endocytic activity and inhibition of phago-lysosome formation, 1364
—. II. Metabolism of endocytised proteins and reversibility of the effects by mannose, 1387
EDGINGTON, THOMAS S. See CHISARI and EDGINGTON, 1122
EDIDIN, MICHAEL. See GOODING and EDIDIN, 61
EISEN, HERMAN N. See MICHAELIDES and EISEN, 687
ELSBACH, PETER. See BECKERDITE, MOONEY, WEISS, FRANSON, and ELSBACH, 396
ENGERS, HOWARD D. See CEROTTINI, ENGERS, MACDONALD, and BRUNNER, 703
—. See MACDONALD, ENGERS, CEROTTINI, and BRUNNER, 718

F

FAHEY, J. L. See JOBIN, FAHEY, and PRICE, 494
FATHMAN, C. GARRISON, HANDWERGER, BARRY S., and SACHS, DAVID H. Evidence for a role of *Ir*-associated alloantigens in mixed lymphocyte culture stimulation, 853
FEARON, DOUGLAS T., AUSTEN, K. FRANK, and RUDDY, SHAUN. Properdin factor D. II. Activation to $\overline{D}$ by properdin, 426
FELDMAN, MICHAEL. See HOLLANDER, GINSBURG, and FELDMAN, 1057
FERRONE, SOLDANO. See PELLEGRINO, FERRONE, COOPER, DIERICH, and REISFELD, 578
FESTENSTEIN, HILLIARD. See HALLORAN, SCHIRRMACHER, and FESTENSTEIN, 1348
FISCHINGER, PETER J. See CHIECO-BIANCHI, COLOMBATTI, COLLAVO, SENDO, AOKI, and FISCHINGER, 1162
FORNI, LUCIANA. See ANDERSSON, BUXBAUM, CITRONBAUM, DOUGLAS, FORNI, MELCHERS, PERNIS, and STOTT, 742
FOTINO, M. See FU, KUNKEL, BRUSMAN, ALLEN, and FOTINO, 1108
FOURNIÉ, GILBERT J., LAMBERT, PAUL H., and MIESCHER, PETER A. Release of DNA in circulating blood and induction of anti-DNA antibodies after injection of bacterial lipopolysaccharides, 1189
FRANSON, R. See BECKERDITE, MOONEY, WEISS, FRANSON, and ELSBACH, 396
FRASCH, CARL E., and GOTSCHLICH, EMIL C. An outer membrane protein of *Neisseria meningitidis* group B responsible for serotype specificity, 87
FREED, JOHN H. See BECHTOL, FREED, HERZENBERG, and MCDEVITT, 1660
FRELINGER, JEFFREY A., NIEDERHUBER, JOHN E., DAVID, C. S., and SHREFFLER, DONALD C. Evi-

dence for the expression of Ia (*H-2*-associated) antigens on thymus-derived lymphocytes, 1273

FU, SHU MAN, and KUNKEL, H. G. Membrane immunoglobulins of B lymphocytes. Inability to detect certain characteristic IgM and IgD antigens, 895

—, —, BRUSMAN, H. P., ALLEN, F. H., JR, and FOTINO, M. Evidence for linkage between HL-A histocompatibility genes and those involved in synthesis of the second component of complement, 1108

—. See POLLIACK, FU, DOUGLAS, BENTWICH, LAMPEN, and DE HARVEN, 146

G

GAFFNEY, JUDITH. See HENNEY, GAFFNEY, and BLOOM, 837

GEBHARDT, BRYAN M., NAKAO, YOSHINOBU, and SMITH, RICHARD T. Clonal character of F_1 hybrid lymphocyte subset recognition of parental cells in one-way mixed lymphocyte cultures, 370

GEORGE, W. J. See IGNARRO and GEORGE, 225

GEWURZ, HENRY. See SIEGEL, RENT, and GEWURZ, 631

GILDEN, R. V. See TSUCHIDA, SHIH, GILDEN, and HATANAKA, 218

GINSBURG, HAIM. See HOLLANDER, GINSBURG, and FELDMAN, 1057

GLEICH, GERALD J., LOEGERING, DAVID A., KUEPPERS, FRIEDRICH, BAJAJ, SATYA P., and MANN, KENNETH G. Physiochemical and biological properties of the major basic protein from guinea pig eosinophil granules, 313

GOETZL, EDWARD J. See LEWIS, WASSERMAN, GOETZL, and AUSTEN, 1133

—. See WINTROUB, GOETZL, and AUSTEN, 812

GOIDL, EDMOND A., and SISKIND, GREGORY W. Ontogeny of B-lymphocyte function. I. Restricted heterogeneity of the antibody response of B-lymphocytes from neonatal and fetal mice, 1285

GOODING, LINDA R., and EDIDIN, MICHAEL. Cell surface antigens of a mouse testicular teratoma. Identification of an antigen physically associated with *H-2* antigens on tumor cells, 61

GOODMAN, J. See WOFSY, BAKER, THOMPSON, GOODMAN, KIMURA, and HENRY, 523

GORCZYNSKI, R. M. See TIGELAAR and GORCZYNSKI, 267

GORDON, SAIMON, UNKELESS, JAY C., and COHN, Z. A. Induction of macrophage plasminogen activator by endotoxin stimulation and phagocytosis. Evidence for a two-stage process, 995

GOTSCHLICH, EMIL C. See FRASCH and GOTSCHLICH, 87

GOTTLIEB, PAUL D. Genetic correlation of a mouse light-chain variable region marker with a thymocyte surface antigen, 1432

GREAVES, MELVYN, JANOSSY, GEORGE, and DOENHOFF, MICHAEL. Selective triggering of human T and B lymphocytes in vitro by polyclonal mitogens, 1

GREEN, IRA. See BEN-SASSON, SHEVACH, GREEN, and PAUL, 383

GRUCA, STANISLAV. See MELSOM, KEARNY, GRUCA, and SELJELID, 1085

H

HALLORAN, PHIL, SCHIRRMACHER, VOLKER, and FESTENSTEIN, HILLIARD. A new sensitive assay for antibody against cell surface antigens based on inhibition of cell-dependent antibody-mediated cytotoxicity. I. Specificity and sensitivity, 1348

HAMMER, DIETRICH K. See MOSSMANN, MEYER-DELIUS, VORTISCH, KICKHÖFEN, and HAMMER, 1468

HÄMMERLING, GÜNTER J., and MCDEVITT, HUGH O. Comparative analysis of antigen-binding T cells in genetic high and low responder mice, 1180

HANDWERGER, BARRY S. See FATHMAN, HANDWERGER, and SACHS, 853

—. See HODES, HANDWERGER, and TERRY, 1646

HANG, LE MING. See PERROTTO, HANG, ISSELBACHER, and WARREN, 296

HATANAKA, M. See TSUCHIDA, SHIH, GILDEN, and HATANAKA, 218

HAUPTFELD, MIROSLAV. See KLEIN, HAUPTFELD, and HAUPTFELD, 1127

HAUPTFELD, VĚRA. See KLEIN, HAUPTFELD, and HAUPTFELD, 1127

HECK, LOUIS W., and KAPLAN, ALLEN P. Substrates of Hageman factor. I. Isolation and characterization of human factor XI (PTA) and inhibition of the activated enzyme by α_1-antitrypsin, 1615

HENNEY, CHRISTOPHER S., GAFFNEY, JUDITH, and BLOOM, BARRY R. On the relation of products of activated lymphocytes to cell-mediated cytolysis, 837

HENRY, C. See WOFSY, BAKER, THOMPSON, GOODMAN, KIMURA, and HENRY, 523

HEREMANS, JOSEPH F. See VAN SNICK, MASSON, and HEREMANS, 1068

HERZENBERG, LEONARD A. See BECHTOL, FREED, HERZENBERG, and MCDEVITT, 1660

—. See JONES, CRAIG, CEBRA, and HERZENBERG, 452

—. See JULIUS and HERZENBERG, 904

HESTER, RAYMOND B. See HURST, VOLANAKIS, HESTER, STROUD, and BENNETT, 1117

HODES, RICHARD J., HANDWERGER, BARRY S., and TERRY, WILLIAM D. Synergy between subpopulations of mouse spleen cells in the in vitro generation of cell-mediated cytotoxicity. Evidence for the involvement of a non-T cell, 1646

HOLLANDER, NURIT, GINSBURG, HAIM, and FELDMAN, MICHAEL. In vitro generation of memory lymphocytes reactive to transplantation antigens, 1057

HOWARD, JONATHAN C., and WILSON, DARCY B. Specific positive selection of lymphocytes reactive to strong histocompatibility antigens, 660

HSU, KONRAD C. See BRENTJENS, O'CONNELL, PAWLOWSKI, HSU, and ANDRES, 105

HURST, MARY M., VOLANAKIS, JOHN E., HESTER, RAYMOND B., STROUD, ROBERT M., and BENNETT, J. CLAUDE. The structural basis for binding of complement by immunoglobulin M, 1117

I

IGNARRO, L. J., and GEORGE, W. J. Mediation of immunologic discharge of lysosomal enzymes from human neutrophils by guanosine 3′,5′-monophosphate. Requirement of calcium, and inhibition by adenosine 3′,5′-monophosphate, 225

IMANISHI, THEREZA, and MÄKELÄ, O. Inheritance of antibody specificity. I. Anti-(4-hydroxy-3-nitrophenyl)acetyl of the mouse primary response, 1498

INCHLEY, C. J. See BLACK and INCHLEY, 333

ISAC, RONIT. See TAUSSIG, MOZES, and ISAC, 301

ISSELBACHER, K. J. See PERROTTO, HANG, ISSELBACHER, and WARREN, 296

IVERSON, G. M. See WAHL, IVERSON, and OPPENHEIM, 1631

J

JACOBSON, JANET B. See STACKPOLE, JACOBSON, and LARDIS, 939

JANDINSKI, JOHN. See CANTOR and JANDINSKI, 1712

JANOSSY, GEORGE. See GREAVES, JANOSSY, and DOENHOFF, 1

JENSEN, FRED C. See CROKER, DEL VILLANO, JENSEN, LERNER, and DIXON, 1028

JENSEN, HENNING. See NIELSEN, JENSEN, BRÆNDSTRUP, and WERDELIN, 1260

JENSON, JAMES C. See CHOI and JENSON, 597

JOBIN, M. E., FAHEY, J. L., and PRICE, Z. Long-term establishment of a human plasmacyte cell line derived from a patient with IgD multiple myeloma. I. Requirement of a plasmacyte-stimulating factor for the proliferation of myeloma cells in tissue culture, 494

JONES, PATRICIA P., and CEBRA, JOHN J. Restriction of gene expression in B lymphocytes and their progeny. III. Endogenous IgA and IgM on the membranes of different plasma cell precursors, 966

JONES, PATRICIA P., CRAIG, SUSAN W., CEBRA, JOHN J., and HERZENBERG, LEONARD A. Restriction of gene expression in B lymphocytes and their progeny. II. Commitment to immunoglobulin heavy chain isotype, 452

JULIUS, MICHAEL H., and HERZENBERG, LEONARD A. Isolation of antigen-binding cells from unprimed mice. Demonstration of antibody-forming cell precursor activity and correlation between precursor and secreted antibody avidities, 904

K

KAPLAN, ALLEN P. See HECK and KAPLAN, 1615

KAPP, JUDITH A., PIERCE, CARL W., and BENACERRAF, BARUJ. Genetic control of immune responses in vitro. III. Tolerogenic properties of the terpolymer L-glutamic acid^{60}-L-alanine^{30}-L-tyrosine^{10} (GAT) for spleen cells from nonresponder (*H-2*^{s} and *H-2*^{q}) mice, 172

—., PIERCE, CARL W., SCHLOSSMAN, STUART, and BENACERRAF, BARUJ. Genetic control of immune responses in vitro. V. Stimulation of suppressor T cells in nonresponder mice by the terpolymer L-glutamic acid^{60}-L-alanine^{30}-L-tyrosine^{10} (GAT), 648

—. See BENACERRAF, KAPP, PIERCE, and KATZ, 185

—. See PIERCE, KAPP, SOLLIDAY, DORF, and BENACERRAF, 921

KARNOVSKY, MORRIS J. See UNANUE and KARNOVSKY, 1207

KATZ, DAVID H., DORF, MARTIN E., and BENACERRAF, BARUJ. Cell interactions between histoincompatible T and B lymphocytes. VI. Cooperative responses between lymphocytes derived from mouse donor strains differing at genes in the S and D regions of the *H-2* complex, 290

—. See ARMERDING and KATZ, 19

—. See ARMERDING, SACHS, and KATZ, 1717

—. See BENACERRAF, KAPP, PIERCE, and KATZ, 185

KEARNEY, GILLA. See MELSOM, KEARNY, GRUCA, and SELJELID, 1085

KICKHÖFEN, BOTHO. See MOSSMANN, MEYER-DELIUS, VORTISCH, KICKHÖFEN, and HAMMER, 1468

KIMURA, J. See WOFSY, BAKER, THOMPSON, GOODMAN, KIMURA, and HENRY, 523

KLEIN, JAN, HAUPTFELD, MIROSLAV, and HAUPTFELD VĚRA. Serological distinction of mutants B6.C-H(z1) and B6.M505 from strain C57BL/6, 1127

KOPROWSKI, HILARY. See CROCE and KOPROWSKI, 1221

KOSKI, IRMA. See BLAESE, WEIDEN, KOSKI, and DOOLEY, 1097

KUEPPERS, FRIEDRICH. See GLEICH, LOEGERING, KUEPPERS, BAJAJ, and MANN, 313

KULCZYCKI, ANTHONY, JR., and METZGER, HENRY. The interaction of IgE with rat basophilic leukemia cells. II. Quantitative aspects of the binding reaction, 1676

KUNKEL, H. G. See FU and KUNKEL, 895

—. See FU, KUNKEL, BRUSMAN, ALLEN, and FOTINO, 1108

L

LAGRANGE, PHILIPPE H. See MACKANESS and LAGRANGE, 865

LAMBERT, PAUL H. See FOURNIÉ, LAMBERT, and MIESCHER, 1189
LAMM, MICHAEL E. See MELCHER, VITETTA, MCWILLIAMS, LAMM, PHILLIPS-QUAGLIATA, and UHR, 1427
LAMPEN, N. See POLLIACK, FU, DOUGLAS, BENTWICH, LAMPEN, and DE HARVEN, 146
LARDIS, MICHAEL P. See STACKPOLE. JACOBSON, and LARDIS, 939
LARSON, DAVID L. See OLDSTONE, COOPER, and LARSON, 549
LASKOV, REUVEN, and SCHARFF, MATTHEW D. Independent synthesis of light and heavy chains. Quantitation of light-chain production by mouse myeloma variants, 1112
LAWSON, YVONNE. See MUNRO, TAUSSIG, CAMPBELL, WILLIAMS, and LAWSON, 1579
LERNER, RICHARD A. See CROKER, DEL VILLANO, JENSEN, LERNER, and DIXON, 1028
LEWIS, ROBERT A., WASSERMAN, STEPHEN I., GOETZL, EDWARD J., and AUSTEN, K. FRANK. Formation of slow-reacting substance of anaphylaxis in human lung tissue and cells before release, 1133
LILLY, FRANK. See DORF, LILLY, and BENACERRAF, 859
LINDENMANN, JEAN. See BINZ, LINDENMANN, and WIGZELL, 731
LINDER, EWERT. See WARTIOVAARA, LINDER, RUOSLAHTI, and VAHERI, 1522
LODMELL, DONALD L., and NOTKINS, ABNER LOUIS. Cellular immunity to herpes simplex virus mediated by interferon, 764
LOEGERING, DAVID A. See GLEICH, LOEGERING, KUEPPERS, BAJAJ, and MANN, 313
LOHRMANN, HANS-PETER, and WHANG-PENG, JACQUELINE. Human mixed leukocyte culture: identification of the proliferating lymphocyte subpopulation by sex chromosome markers, 54
LONAI, PETER, and MCDEVITT, HUGH O. Genetic control of the immune response. In vitro stimulation of lymphocytes by (T,G)-A--L, (H,G)-A--L, and (Phe, G)-A--L, 977
— and —. I-region genes are expressed on T and B lymphocytes. Studies of the mixed lymphocyte reaction (MLR), 1317

M

MACDERMOTT, RICHARD P. See ROCKLIN, MACDERMOTT, CHESS, SCHLOSSMAN, and DAVID,1303
MACDONALD, H. ROBSON, CEROTTINI, JEAN-CHARLES, and BRUNNER, K. THEODOR. Generation of cytotoxic T lymphocytes in vitro. III. Velocity sedimentation studies of the differentiation and fate of effector cells in long-term mixed leukocyte cultures, 1511
—, ENGERS, HOWARD D., CEROTTINI, JEAN-CHARLES, and BRUNNER, K. THEODOR. Generation of cytotoxic T lymphocytes in vitro. II. Effect of repeated exposure to alloantigens on the cytotoxic activity of long-term mixed leukocyte cultures, 718
—. See CEROTTINI, ENGERS, MACDONALD, and BRUNNER, 703
MACKANESS, GEORGE B., and LAGRANGE, PHILIPPE H. Restoration of cell-mediated immunity to animals blocked by a humoral response, 865
MÄKELÄ, O. See IMANISHI and MÄKELÄ, 1498
MANN, KENNETH G. See GLEICH, LOEGERING, KUEPPERS, BAJAJ, and MANN, 313
MASSON, PIERRE L. See VAN SNICK, MASSON, and HEREMANS, 1068
MATTER, ALEX. The differentiation pathway of T lymphocytes. Evidence for two differentiated cell types, 566
MCDEVITT, HUGH O. See BECHTOL. FREED, HERZENBERG, and MCDEVITT, 1660
—. See HÄMMERLING and MCDEVITT, 1180
—. See LONAI and MCDEVITT, 977, 1317
MCWILLIAMS, MICHAEL. See MELCHER, VITETTA, MCWILLIAMS, LAMM, PHILLIPS-QUAGLIATA, and UHR, 1427
MELCHER, ULRICH, VITETTA, ELLEN S., MCWILLIAMS, MICHAEL, LAMM, MICHAEL E., PHILLIPS-QUAGLIATA, JULIA M., and UHR, JONATHAN W. Cell surface immunoglobulin. X. Identification of an IgD-like molecule on the surface of murine splenocytes 1427
MELCHERS, FRITZ. See ANDERSSON, BUXBAUM, CITRONBAUM, DOUGLAS, FORNI, MELCHERS, PERNIS, and STOTT, 742
MELLORS, ROBERT C. See YOSHIKI, MELLORS, STRAND, and AUGUST, 1011
MELSOM, HAAKON, KEARNY, GILLA, GRUCA, STANISLAV, and SELJELID, ROLF. Evidence for a cytolytic factor released by macrophages, 1085
MERGENHAGEN, STEPHAN E. See ROSENSTREICH, ASSELINEAU, MERGENHAGEN, and NOWOTNY, 1404
METZGER, HENRY. See KULCZYCKI and METZGER, 1676
MEYER-DELIUS, MARGOT. See MOSSMANN, MEYER-DELIUS, VORTISCH, KICKHÖFEN, and HAMMER, 1468
MICHAELIDES, MARIA C., and EISEN, HERMAN N. The strange cross-reaction of menadione (vitamin K_3) and 2,4-dinitrophenyl ligands with a myeloma protein and some conventional antibodies, 687
MIESCHER, PETER A. See FOURNIÉ, LAMBERT, and MIESCHER, 1189
MILLER, J. F. A. P. See BASTEN, MILLER, SPRENT, and CHEERS, 199
MINOWADA, JUN. See TAKADA, TAKADA, and MINOWADA, 538
MOONEY, CAROLYN. See BECKERDITE, MOONEY, WEISS, FRANSON, and ELSBACH, 396
MORRIS, BEDE. See PEDERSEN and MORRIS, 619
MORRISON, DAVID C., and COCHRANE, CHARLES G. Direct evidence for Hageman factor (factor XII) activation by bacterial lipopolysaccharides (endotoxins), 797
MOSSMANN, HORST, MEYER-DELIUS, MARGOT,

VORTISCH, UTA, KICKHÖFEN, BOTHO, and HAMMER, DIETRICH K. Experimental studies on the bridging hypothesis of anaphylaxis. Haptenic determinants required to elicit immediate-type reactions in calf skin by separate or concurrent sensitization with reagins of different specificity, 1468

MOZES, EDNA, SCHWARTZ, MICHAL, and SELA, MICHAEL. Antibody response of inbred mouse strains to ordered tetrapeptides of tyrosine and glutamic acid attached to multichain polyalanine or polyproline. Tyr-Tyr-Glu-Glu is a major determinant of the random poly-(Tyr, Glu)-polyDLAla--polyLys, 349

—. See TAUSSIG, MOZES, and ISAC, 301

MÜLLER-EBERHARD, HANS J. See SCHREIBER and MÜLLER-EBERHARD, 1324

MUNRO, A. J., TAUSSIG, M. J., CAMPBELL, ROSALIE, WILLIAMS, HEATHER, and LAWSON, YVONNE. Antigen-specific T-cell factor in cell cooperation: physical properties and mapping in the left-hand (K) half of *H-2*, 1579

N

NAKAO, YOSHINOBU. See GEBHARDT, NAKAO, and SMITH, 370

NIEDERHUBER, JOHN E. See FRELINGER, NIEDERHUBER, DAVID, and SHREFFLER, 1273

NIELSEN, MORTEN H., JENSEN, HENNING, BRÆNDSTRUP, OTTO, and WERDELIN, OLE. Macrophage-lymphocyte clusters in the immune response to soluble protein antigen in vitro. II. Ultrastructure of clusters formed during the early response, 1260

NOAR, DAVID. See ZOLLA and NOAR, 1421

NOTKINS, ABNER LOUIS. See LODMELL and NOTKINS, 764

NOWOTNY, ALOIS. See ROSENSTREICH, ASSELINEAU, MERGENHAGEN, and NOWOTNY, 1404

O

OATES, HELEN F., and STOKES, GORDON S. Role of extrapulmonary conversion in mediating the systemic pressor activity of angiotensin I, 79

O'CONNELL, DAVID W. See BRENTJENS, O'CONNELL, PAWLOWSKI, HSU, and ANDRES, 105

OLDSTONE, MICHAEL B. A., COOPER, NEIL R., and LARSON, DAVID L. Formation and biologic role of polyoma virus-antibody complexes. A critical role for complement, 549

OPPENHEIM, J. J. See WAHL, IVERSON, and OPPENHEIM, 1631

P

PALMER, DONALD W. See SUGAI, PALMER, TALAL, and WITZ, 1547

PAUL, WILLIAM E. See BEN-SASSON, SHEVACH, GREEN, and PAUL, 383

PAWLOWSKI, IRENE B. See BRENTJENS, O'CONNELL, PAWLOWSKI, HSU, and ANDRES, 105

PEAVY, DUANE L., and PIERCE, CARL W. Cell-mediated immune responses in vitro. I. Suppression of the generation of cytotoxic lymphocytes by concanavalin A and concanavalin A-activated spleen cells, 356

PEDERSEN, ESKILD. See WERDELIN, BRÆNDSTRUP, and PEDERSEN, 1245

PEDERSEN, NIELS C., and MORRIS, BEDE. The role of humoral antibody in the rejection of primary renal allografts in sheep, 619

PEDICONI, M. See REVOLTELLA, BERTOLINI, PEDICONI, and VIGNETI, 437

PELLEGRINO, MICHELE A., FERRONE, SOLDANO, COOPER, NEIL R., DIERICH, MANFRED P., and REISFELD, RALPH A. Variation in susceptibility of a human lymphoid cell line to immune lysis during the cell cycle. Lack of correlation with antigen density and complement binding, 578

PEPYS, M. B. Role of complement in induction of antibody production in vivo. Effect of cobra factor and other C3-reactive agents on thymus-dependent and thymus-independent antibody responses, 126

PERNIS, BENVENUTO. See ANDERSSON, BUXBAUM, CITRONBAUM, DOUGLAS, FORNI, MELCHERS, PERNIS, and STOTT, 742

PERROTTO, JOSEPH L., HANG, LE MING, ISSELBACHER, K. J., and WARREN, K. S. Systematic cellular hypersensitivity by an intestinally absorbed antigen, 296

PHILLIPS-QUAGLIATA, JULIA M. See MELCHER, VITETTA, MCWILLIAMS, LAMM, PHILLIPS-QUAGLIATA, and UHR, 1427

PIERCE, CARL W., KAPP, JUDITH A., SOLLIDAY, SUSAN M., DORF, MARTIN E., and BENACERRAF, BARUJ. Immune responses in vitro. XI. Suppression of primary IgM and IgG plaque-forming cell responses in vitro by alloantisera against leukocyte alloantigens 921

—. See BENACERRAF, KAPP, PIERCE, and KATZ, 185

—. See KAPP, PIERCE, and BENACERRAF, 172

—. See KAPP, PIERCE, SCHLOSSMAN, and BENACERRAF, 648

—. See PEAVY and PIERCE, 356

POLLIACK, A., FU, SHU MAN, DOUGLAS, S. D., BENTWICH, Z., LAMPEN, N., and DE HARVEN, E. Scanning electron microscopy of human lymphocyte-sheep erythrocyte rosettes, 146

POSKITT, PAULA K. F., POSKITT, THOMAS R., and WALLACE, JOHN H. Renal deposition of soluble immune complexes in mice bearing B-16 melanoma. Characterization of complexes and relationship to tumor progress, 410

POSKITT, THOMAS R. See POSKITT, POSKITT, and WALLACE, 410

POSTLETHWAITE, ROY. See VIRELIZIER, POSTLETHWAITE, SCHILD, and ALLISON, 1559

PRICE, Z. See JOBIN, FAHEY, and PRICE, 494

R

RAMSEIER, HANSRUEDY. Spontaneous release of T-cell receptors for alloantigens. I. Recogni-

tion of alloantigens and receptor release dynamics, 603
REISFELD, RALPH S. See PELLEGRINO, FERRONE, COOPER, DIERICH, and REISFELD, 578
RENT, ROSEMARIE. See SIEGEL, RENT, and GEWURZ, 631
REVOLTELLA, R., BERTOLINI, L., PEDICONI, M., and VIGNETI, E. Specific binding of nerve growth factor (NGF) by murine C 1300 neuroblastoma cells 437
REYNOLDS, JOHN J. See WERB and REYNOLDS, 1482
RIBLET, ROY. See WATSON and RIBLET, 1147
RICH, SUSAN SOLLIDAY, and RICH, ROBERT R. Regulatory mechanisms in cell-mediated immune responses. I. Regulation of mixed lymphocyte reactions by alloantigen-activated thymus-derived lymphocytes, 1588
RICH, ROBERT R. See RICH and RICH, 1588
ROCKLIN, ROSS E., MACDERMOTT, RICHARD P., CHESS, LEONARD, SCHLOSSMAN, STUART F., and DAVID, JOHN R. Studies on mediator production by highly purified human T and B lymphocytes, 1303
ROSENSTREICH, DAVID L., ASSELINEAU, JEAN, MERGENHAGEN, STEPHAN E., and NOWOTNY, ALOIS. A synthetic glycolipid with B-cell mitogenic activity, 1404
RUBINSTEIN, PABLO, DECARY, FRANCINE, and STREUN, EDWIN W. Quantitative studies on tumor enhancement in mice. I. Enhancement of sarcoma I induced by IgM, IgG1, and IgG2, 591
RUDBACH, JON A. See VON ESCHEN and RUDBACH, 1604
RUDDY, SHAUN. See FEARON, AUSTEN, and RUDDY, 426
RUOSLAHTI, ERKKI. See WARTIOVAARA, LINDER, RUOSLAHTI, and VAHERI, 1522

S

SABBADINI, EDRIS. Regulation of cell-mediated cytotoxicity.I. Augmentation of cell-mediated cytotoxicity induced by radiation, 470
SACHS, DAVID H. See DICKLER and SACHS, 779
—. See ARMERDING, SACHS, and KATZ, 1717
—. See FATHMAN, HANDWERGER, and SACHS, 853
SANTOS-BUCH, CHARLES A., and TEIXEIRA, ANTONIO R. L. The immunology of experimental Chagas' disease. III. Rejection of allogeneic heart cells in vitro, 38
SCHARFF, MATTHEW D. See LASKOV and SCHARFF, 1112
SCHENDEL, DOLORES J., and BACH, FRITZ H. Genetic control of cell-mediated lympholysis in mouse, 1534
SCHILD, GEOFFREY C. See VIRELIZIER, ALLISON, and SCHILD, 1571
—. See VIRELIZIER, POSTELTHWAITE, SCHILD, and ALLISON, 1559
SCHIRRMACHER, VOLKER. See HALLORAN, SCHIRRMACHER, and FESTENSTEIN, 1348
SCHLOSSMAN, STUART. See KAPP, PIERCE, SCHLOSSMAN, and BENACERRAF, 648
—. See ROCKLIN, MACDERMOTT, CHESS, SCHLOSSMAN, and DAVID, 1303
SCHRIEBER, ROBERT D., and MÜLLER-EBERHARD, HANS J. Fourth component of human complement: description of a three polypeptide chain structure, 1324
SCHROER, KENNETH R., BRILES, DAVID E., VAN BOXEL, JOHN A., and DAVIE, JOSEPH M. Idiotypic uniformity of cell surface immunoglobulin in chronic lymphocytic leukemia. Evidence for monoclonal proliferation, 1416
SCHWARTZ, MICHAL. See MOZES, SCHWARTZ, and SELA, 349
SELA, MICHAEL. See MOZES, SCHWARTZ, and SELA, 349
SELJELID, ROLF. See MELSOM, KEARNY, GRUCA, and SELJELID, 1085
SENDO, FUJIRO. See CHIECO-BIANCHI, COLOMBATTI, COLLAVO, SENDO, AOKI, and FISCHINGER, 1162
SHEVACH, ETHAN. See BEN-SASSON, SHEVACH, GREEN, and PAUL, 383
SHIH, M. See TSUCHIDA, SHIH, GILDEN, and HATANAKA, 218
SHIRAHAMA, TSURANOBU, and COHEN, ALAN S. Blockage of amyloid induction by colchicine in animal model, 1102
SHREFFLER, DONALD C. See FRELINGER, NIEDERHUBER, DAVID, and SHREFFLER, 1273
SIEGEL, JOAN, RENT, ROSEMARIE, and GEWURZ, HENRY. Interactions of C-reactive protein with the complement system. I. Protamine-induced consumption of complement in acute phase sera, 631
SILVERBLATT, FREDERIC J. Host-parasite interaction in the rat renal pelvis: a possible role for pili in the pathogenesis of pyelonephritis, 1696
SISKIND, GREGORY W. See GOIDL and SISKIND, 1285
SKINNER, MARTHA, CATHCART, EDGAR S., COHEN, ALAN S., and BENSON, MERRILL D. Isolation and identification by sequence analysis of experimentally induced guinea pig amyloid fibrils, 871
SMITH, RICHARD T. See GEBHARDT, NAKAO, and SMITH, 370
SOBEL, ALAIN T. See BOKISCH and SOBEL, 1336
SOLLIDAY, SUSAN M. See PIERCE, KAPP, SOLLIDAY, DORF, and BENACERRAF, 921
SPRENT, J. See BASTEN, MILLER, SPRENT, and CHEERS, 199
STACKPOLE, CHRISTOPHER W., JACOBSON, JANET B., and LARDIS, MICHAEL P. Antigenic modulation in vitro. I. Fate of thymus-leukemia (TL) antigen-antibody complexes following modulation of TL antigenicity from the surfaces of mouse leukemia cells and thymocytes, 939

STIMPFLING, JACK, See CHESEBRO, WEHRLY, and STIMPFLING, 1457
STOKES, GORDON S. See OATES and STOKES, 79
STOTT, DAVID. See ANDERSSON, BUXBAUM, CITRONBAUM, DOUGLAS, FORNI, MELCHERS, PERNIS, and STOTT, 742
STRAND, METTE. See YOSHIKI, MELLORS, STRAND, and AUGUST, 1011
STREUN, EDWIN W. See RUBINSTEIN, DECARY, and STREUN, 591
STROUD, ROBERT M. See HURST, VOLANAKIS, HESTER, STROUD, and BENNETT, 1117
SUGAI, SUSUMU, PALMER, DONALD W., TALAL, NORMAN, and WITZ, ISAAC P. Protective and cellular responses to idiotypic membrane determinants on cells from a spontaneous lymphoma of NZB/NZW F_1 mice, 1547

T

TADA, TOMIO, and TAKEMORI, TOSHITADA. Selective roles of thymus-derived lymphocytes in the antibody response. I. Differential suppressive effect of carrier-primed T cells on hapten-specific IgM and IgG antibody responses, 239
—. See TAKEMORI and TADA, 253
TAKADA, AKIKAZU, TAKADA, YUMIKO, and MINOWADA, JUN. Immunological functions of human T-lymphoid cell line (MOLT). I. Release of immunosuppressive factors from the mixture of MOLT-4 cells and sheep red blood cells, 538
TAKADA, YUMIKO. See TAKADA, TAKADA, and MINOWADA, 538
TAKEMORI, TOSHITADA, and TADA, TOMIO. Selective roles of thymus-derived lymphocytes in the antibody response. II. Preferential suppression of high-affinity antibody-forming cells by carrier-primed suppressor T cells, 253
—. See TADA and TAKEMORI 239
TALAL, NORMAN. See SUGAI, PALMER, TALAL, and WITZ, 1547
TAUSSIG, M. J., MOZES, EDNA, and ISAC, RONIT. Antigen-specific thymus cell factors in the genetic control of the immune response to poly-(tyrosyl,glutamyl)-poly-D,L-alanyl--polylysyl, 301
—. See MUNRO, TAUSSIG, CAMPBELL, WILLIAMS, and LAWSON, 1579
TEIXEIRA, ANTONIO R. L. See SANTOS-BUCH and TEIXEIRA, 38
TERMIJTELEN, A. See VAN DEN TWEEL, VRIESENDORP, TERMIJTELEN, WESTBROEK, BACH, and VAN ROOD, 825
TERRY, WILLIAM D. See HODES, HANDWERGER, and TERRY, 1646
THEOFILOPOULOS, ARGYRIOS N., DIXON, FRANK J., and BOKISCH, VIKTOR A. Binding of soluble immune complexes to human lymphoblastoid cells. I. Characterization of receptors for IgG Fc and complement and description of the binding mechanism, 877
—, WILSON, CURTIS B., BOKISCH, VIKTOR A., and DIXON, FRANK J. Binding of soluble immune complexes to human lymphoblastoid cells. II. Use of Raji cells to detect circulating immune complexes in animal and human sera, 1230
THOMPSON, K. See WOFSY, BAKER, THOMPSON, GOODMAN, KIMURA, and HENRY, 523
TIGELAAR, ROBERT, and GORCZYNSKI, R. M. Separable populations of activated thymus-derived lymphocytes identified in two assays for cell-mediated immunity to murine tumor allografts, 267
TSUCHIDA, N., SHIH, M., GILDEN, R. V., and HATANAKA, M. Mutants of nonproducer cell lines transformed by murine sarcoma virus. III. Detection and characterization of RNA specific for helper and sarcoma viruses, 218

U

UHR, JONATHAN W. See MELCHER, VITETTA, MCWILLIAMS, LAMM, PHILLIPS-QUAGLIATA, and UHR, 1427
UNANUE, EMIL R., and KARNOVSKY, MORRIS J. Ligand-induced movement of lymphocyte membrane macromolecules. V. Capping, cell movement, and microtubular function in normal and lectin-treated lymphocytes, 1207
UNKELESS, JAY C. See GORDON, UNKELESS, and COHN, 995

V

VAHERI, ANTTI. See WARTIOVAARA, LINDER, RUOSLAHTI, and VAHERI, 1522
VAN BOXEL, JOHN A. See SCHROER, BRILES, VAN BOXEL, and DAVIE, 1416
VAN DEN TWEEL, J. G., VRIESENDORP, H. M., TERMIJTELEN, A., WESTBROEK, D. L., BACH, M. L., and VAN ROOD, J. J. Genetic aspects of canine mixed leukocyte cultures, 825
VAN ROOD, J. J. See VAN DEN TWEEL, VRIESENDORP, TERMIJTELEN, WESTBROEK, BACH, and VAN ROOD, 825
VAN SNICK, JACQUES L., MASSON, PIERRE L., and HEREMANS, JOSEPH F. The involvement of lactoferrin in the hyposideremia of acute inflammation, 1068
VIGNETI, E. See REVOLTELLA, BERTOLINI, PEDICONI, and VIGNETI, 437
VIRELIZIER, JEAN-LOUIS, ALLISON, ANTHONY C., and SCHILD, GEOFFREY C. Antibody responses to antigenic determinants of influenza virus hemagglutinin. II. Original antigenic sin: a bone marrow-derived (B) lymphocyte memory phenomenon modulated by thymus-derived lymphocytes, 1571
—, POSTLETHWAITE, ROY, SCHILD, GEOFFREY C., and ALLISON, ANTHONY C. Antibody responses to antigenic determinants of influenza virus hemagglutinin. I. Thymus dependence of antibody formation and thymus independence of immunological memory, 1559

VITETTA, ELLEN S. See MELCHER, VITETTA, MCWILLIAMS, LAMM, PHILLIPS-QUAGLIATA, and UHR, 1427
VOLANAKIS, JOHN E. See HURST, VOLANAKIS, HESTER, STROUD, and BENNETT, 1117
VON ESCHEN, KENNETH B., and RUDBACH, JON A. Immunological response of mice to native protoplasmic polysaccharide and lipopolysaccharide. Functional separation of the two signals required to stimulate a secondary antibody response, 1604
VORTISCH, UTA. See MOSSMANN, MEYER-DELIUS, VORTISCH, KICKHÖFEN, and HAMMER, 1468
VRIESENDORP, H. M. See VAN DEN TWEEL, VRIESENDORP, TERMIJTELEN, WESTBROEK, BACH, and VAN ROOD, 825

W

WAHL, S. M., IVERSON, G. M., and OPPENHEIM, J. J. Induction of guinea pig B-cell lymphokine synthesis by mitogenic and nonmitogenic signals to Fc, Ig, and C3 receptors, 1631
WALLACE, JOHN H. See POSKITT, POSKITT, and WALLACE, 410
WARREN, K. S. See PERROTTO, HANG, ISSELBACHER, and WARREN, 296
WARTIOVAARA, JORMA, LINDER, EWERT, RUOSLAHTI, ERKKI, and VAHERI, ANTTI. Distribution of fibroblast surface antigen. Association with fibrillar structures of normal cells and loss upon viral transformation, 1522
WASSERMAN, STEPHEN I. See LEWIS, WASSERMAN, GOETZL, and AUSTEN, 1133
WATSON, JAMES, and RIBLET, ROY. Genetic control of responses to bacterial lipopolysaccharides in mice. I. Evidence for a single gene that influences mitogenic and immunogenic responses to lipopolysaccharides, 1147
WEHRLY, KATHY. See CHESEBRO, WEHRLY, and STIMPFLING, 1457
WEIDEN, PAUL L. See BLAESE, WEIDEN, KOSKI, and DOOLEY, 1097
WEIGLE, WILLIAM O. See CLAGETT, WILSON, and WEIGLE, 1439
WEISS, J. See BECKERDITE, MOONEY, WEISS, FRANSON, and ELSBACH, 396
WERB, ZENA, and REYNOLDS, JOHN J. Stimulation by endocytosis of the secretion of collagenase and neutral proteinase from rabbit synovial fibroblasts, 1482
WERDELIN, OLE, BRÆNDSTRUP, OTTO, and PEDERSEN, ESKILD. Macrophage-lymphocyte clusters in the immune response to soluble protein antigen in vitro. I. Roles of lymphocytes and macrophages in cluster formation, 1245
—. See NIELSEN, JENSEN, BRÆNDSTRUP, and WERDELIN, 1260
WESTBROEK, D. L. See VAN DEN TWEEL, VRIESENDORP, TERMIJTELEN, WESTBROEK, BACH, and VAN ROOD, 825
WHANG-PENG, JACQUELINE. See LOHRMANN and WHANG-PENG, 54
WIGZELL, HANS. See BINZ, LINDENMANN, and WIGZELL, 731
WILLIAMS, HEATHER. See MUNRO, TAUSSIG, CAMPBELL, WILLIAMS, and LAWSON, 1579
WILSON, CURTIS B. See CLAGETT, WILSON, and WEIGLE, 1439
—. See THEOFILOPOULOS, WILSON, BOKISCH, and DIXON, 1230
WILSON, DARCY B. See HOWARD and WILSON, 660
WINTROUB, BRUCE U., GOETZL, EDWARD J., and AUSTEN, K. FRANK. A neutrophil-dependent pathway for the generation of a neutral peptide mediator. Partial characterization of components and control by α-1-antitrypsin, 812
WITZ, ISAAC P. See SUGAI, PALMER, TALAL, and WITZ, 1547
WOFSY, L., BAKER, P. C., THOMPSON, K., GOODMAN, J., KIMURA, J., and HENRY, C. Hapten-sandwich labeling. I. A general procedure for simultaneous labeling of multiple cell curface antigens for fluorescence and electron microscopy, 523

Y

YOSHIKI, TAKASHI, MELLORS, ROBERT C., STRAND, METTE, and AUGUST, J. T. The viral envelope glycoprotein of murine leukemia virus and the pathogenesis of immune complex glomerulonephretis of New Zealand mice, 1011

Z

ZOLLA, SUSAN, and NOAR, DAVID. Restoration of immune competence in tolerant mice by parabiosis to normal mice, 1421

INDEX TO SUBJECTS

A

Acetyl, anti-(4-hydroxy-3-nitrophenyl)-, of mouse primary response, inheritance of antibody specificity, 1498

Acid, deoxyribonucleic, release in circulating blood and induction of anti-DNA antibodies after injection of bacterial lipopolysaccharides, 1189

—, glutamic, and tyrosine, attached to multichain polyalanine or polyproline, antibody response of inbred mouse strains to ordered tetrapeptides of, Tyr-Tyr-Glu-Glu is major determinant of random poly-(Tyr,Glu)-poly-DL-Ala--polyLys, 349

—, RNA, specific for helper and sarcoma viruses, detection and characterization, 218

Adenosine 3′,5′-monophosphate, cyclic, intracellular, process of human T lymphocyte "E" rosette function modulated by 1122

—, inhibition by, and requirement of calcium in mediation of immunologic discharge of lysosomal enzymes from human neutrophils by guanosine 3′,5′-monophosphate, 225

Agammaglobulinemia, infectious, transmission of immunodeficiency with grafts of agammaglobulinemic cells, 1097

Agammaglobulinemic cells, transmission of immunodeficiency with grafts of, 1097

Alloantigens and B lymphocytes, evidence for identity or close association of Fc receptor determined by *Ir* region of *H-2* complex, 779

—, cell-bound receptors for on normal lymphocytes, 731

—, effect of repeated exposure to on cytotoxic activity of long-term mixed leukocyte cultures, 718

—, *Ir*-associated, role in mixed lymphocyte culture stimulation, 853

—, leukocyte, suppression of primary IgM and IgG plaque-forming cell responses in vitro by alloantisera against, 921

—, spontaneous release of T-cell receptors for, recognition and receptor release dynamics, 603

Alloantigen-activated thymus-derived lymphocytes, regulation of mixed lymphocyte reactions by, 1588

Alloantisera against leukocyte alloantigens, suppression of primary IgM and IgG plaque-forming cell responses in vitro by, 921

—, suppressive effects of IgG fragments derived from, 481

Alloantiserum-induced inhibition of migration inhibition factor production in immune response gene-controlled immune systems, 383

Alloantiserum-mediated suppression of histocompatibility-linked *Ir*-gene-controlled immune responses, 481

Allogeneic effect factor active in triggering specific B lymphocytes, biological and biochemical properties, 619

—, presence of Ia determinants on, activation of T and B lymphocytes in vitro, 1717

—, heart cells, rejection in vitro, immunology of Chagas' disease, 38

Allografts, renal, primary, in sheep, role of humoral antibody in rejection of, 619

—, tumor, murine, separable populations of activated thymus-derived lymphocytes identified in two assays for cell-mediated immunity to, 267

Amyloid fibrils, guinea pig, experimentally induced, isolation and identification by sequence analysis of, 871

—, induction, blockage by colchicine in animal model, 1102

Anaphylaxis, bridging hypothesis of, 1468

—, formation of slow-reacting substance of in human lung tissue and cells before release, 1133

Angiotensin I, role of extrapulmonary conversion in mediating systemic pressor activity of, 79

Animal and human sera, use of Raji cells to detect circulating immune complexes in, 1230

—, model, blockage of amyloid induction by colchicine in, 1102

Animals blocked by humoral response, restoration of cell-mediated immunity to, 865

Antialloantibody serum contains specific factors reacting with relevant immunocompetent T lymphocytes, 731

Antibodies, anti-DNA, induction, and release of DNA in circulating blood after injection of bacterial lipopolysaccharides, 1189

—, antiphosphorylcholine, mouse, idiotypic uniformity of binding site-associated antigenic determinants among, 673

—, conventional, and myeloma protein, strange cross-reaction of menadione (vitamin K_3) and 2,4-dinitrophenyl ligands with, 687

Antibody against cell surface antigens, new sensitive assay for based on inhibition of cell-dependent antibody-mediated cytotoxicity, specificity and sensitivity, 1348

Antibody, humoral, role in rejection of primary renal allografts of sheep, 619
—, production in vivo, role of complement in induction, 126
—, response of B lymphocytes from neonatal and fetal mice, restricted heterogeneity of, 1285
—, response of inbred mouse strains to ordered tetrapeptides of tyrosine and glutamic acid attached to multichain polyalanine or polyproline, Tyr-Tyr-Glu-Glu is major determinant of random poly-(Tyr,Glu)-poly$_{DL}$Ala--polyLys, 349
—response under *Ir* gene control in vitro, conditions for cooperative interactions between nonresponder parental B cells and primed (responder × nonresponder)F_1T cells in development of, 185
—, response, secondary, functional separation of two signals required to stimulate, immunological responses of mice to native protoplasmic polysaccharide and lipopolysaccharide, 1604
—, response, selective roles of thymus-derived lymphocytes in, 239, 253
—, response to poly-L(Tyr,Glu)-poly-D,L-Ala--poly-L-Lys in C3H↔CWB tetraparental mice, genetic control of, 1660
—, responses to antigenic determinants of influenza virus hemagglutinin, 1559, 1571
—, specificity, inheritance, anti-(4-hydroxy-3-nitrophenyl)acetyl of mouse primary response, 1498
Antibody-antigen complexes, thymus-leukemia, fate following modulation of TL antigenicity from surfaces of mouse leukemia cells and thymocytes, 939
Antibody-forming cell precursor activity and correlation between precursor and secreted antibody avidities, demonstration of, 904
Antibody-polyoma virus complexes, formation and biologic role, critical role for complement. 549
Antigen density and complement binding, variation in susceptibility of human lymphoid cell line to immune lysis during cell cycle, lack of correlation with, 578
—, fibroblast surface, distribution, 1511
—, intestinally absorbed, systemic cellular hypersensitivity induced by, 296
— physically associated with *H-2* antigens on tumor cells, identification, 61
—, protein, soluble, macrophage-lymphocyte clusters in immune response in vitro, 1245
—, protein, soluble, macrophage-lymphocyte clusters in immune response in vitro, ultrastructure of clusters formed during early response, 1260
— specific T-cell factor in cell cooperation, physical properties and mapping in left-hand (K) half of *H-2*, 1579
—, thymocyte surface, genetic correlation of mouse light chain variable region marker with, 1432
Antigen-antibody complexes, thymus-leukemia, fate following modulation of TL antigenicity from surfaces of mouse leukemia cells and thymocytes, 939
Antigen-binding cells, isolation from unprimed mice, demonstration of antibody-forming cell precursor activity and correlation between precursor and secreted antibody avidities, 904
— T cells in genetic high and low responder mice, comparative analysis, 1180
Antigen-complexed or heat-aggregated immunoglobulin, human lymphocyte receptor for, 508
Antigen-specific thymus cell factors in genetic control of immune response to poly-(tyrosyl, glutamyl)-poly-D,L-alanyl--poly-lysyl, 301
Antigenic determinants, binding site-associated, among mouse antiphosphorylcholine antibodies, idiotypic uniformity of, 673
— determinants of influenza virus hemagglutinin, antibody responses to, 1559, 1571
— modulation in vitro, 939
Antigenicity, TL, modulation from surfaces of mouse leukemia cells and thymocytes, fate of thymus-leukemia antigen-antibody complexes following, 939
Antigens, cell surface, of mouse testicular teratoma, 61
—, cell surface, multiple, general procedure for simultaneous labeling for fluorescence and electron microscopy, 523
—, cell surface, new sensitive assay for antibody against, based on inhibition of cell-dependent antibody-mediated cytotoxicity, specificity and sensitivity, 1348
—, histocompatibility, strong, specific positive selection of lymphocytes reactive to, 660
— Ia(*H-2* associated), evidence for expression on thymus-derived lymphocytes, 1273
—, IgM and IgD, characteristic, inability to detect, membrane immunoglobulins of B lymphocytes, 895
—, transplantation, in vitro generation of memory lymphocytes reactive to, 1057
Antiphosphorylcholine antibodies, mouse, idiotypic uniformity of binding site-associated antigenic determinants among, 673
Autoantibody to thyroglobulin, role of, interstitial immune complex thyroiditis in mice, 1439

B

Bacteria, gram-negative, and *Escherichia coli*, early and discrete changes in permeability during killing by granulocytes, 396
Bacterial lipopolysaccharides (endotoxins), Hageman factor (factor XII), activation by, 797
Basophilic leukemia cells, rat, interaction of IgE with, quantitative aspects of binding reaction, 1676

Blastocyst, mouse, cells transferred into, effect on subsequent development, 1049
Blood cells, red. *See* Erythrocytes.
—, circulating, release of DNA in and induction of anti-DNA antibodies after injection of bacterial lipopolysaccharides, 1189
— monocytes, human, mechanism of endogenous pyrogen production, 954
Bone marrow-derived cell lymphokine, synthesis, induction by mitogenic and nonmitogenic signals to Fc, Ig, and C3 receptors, 1631
— marrow-derived cell mitogenic activity, synthetic glycolipid with, 1404
— marrow-derived cell maturation, model for, 742
— marrow-derived cells, parental, nonresponder, and primed (responder × nonresponder) F_1T cells, conditions for cooperative interactions between in development of antibody response under *Ir* gene control in vitro, 185
— marrow-derived lymphocyte function, ontogeny, 1285
— marrow-derived lymphocyte memory phenomenon modulated by thymus-derived lymphocytes, original antigenic sin, 1571
— marrow-derived lymphocytes and alloantigens, evidence for identity or close association of Fc receptor determined by *Ir* region of *H-2* complex, 779
— marrow-derived lymphocytes, human, and cultured human lymphoblastoid cells, receptor for fourth component of complement on, 1336
— marrow-derived lymphocytes, membrane immunoglobulins of, inability to detect characteristic IgM and IgD antigens, 895
— marrow-derived lymphocytes and progeny, restriction of gene expression in, 966
— marrow-derived lymphocytes and progeny, restriction of gene expression in, commitment to immunoglobulin heavy chain isotype, 452
— marrow-derived and thymus-derived human lymphocytes, selective triggering in vitro by polyclonal mitogens, 1
— marrow-derived and thymus-derived lymphocytes, activation in vitro, 19
— marrow-derived and thymus-derived lymphocytes, highly purified, mediator production by, 1303
— marrow-derived and thymus-derived lymphocytes, histoincompatible, cell interactions between, 290
— marrow-derived and thymus-derived lymphocytes, I-region genes expressed on, mixed lymphocyte reaction, 1317

C

Calcium requirement, and inhibition by adenosine 3′,5′-monophosphate in mediation of immunologic discharge of lysosomal enzymes from human neutrophils by guanosine 3′,5′-monophosphate, 225
Carrier-primed suppressor T cells, preferential suppression of high-affinity antibody-forming cells by, 253
— T cells, differential suppressive effect on hapten-specific IgM and IgG antibody responses, 239
Cell-bound receptors for alloantigens on normal lymphocytes, 731
Cell-dependent antibody-mediated cytotoxicity, new sensitive assay for antibody against cell surface antigens based on inhibition of, specificity and sensitivity, 1348
—, T, suppression in tolerant mice, cell-to-cell interaction in immune response, 199
Cell-mediated cytolysis, relation of products of activated lymphocytes to, 837
— cytotoxicity induced by radiation, augmentation of, 470
— cytotoxicity, synergy between subpopulations of mouse spleen cells in in vitro generation of, evidence for involvement of non-T cell, 1646
— immune responses in vitro, suppression of generation of cytotoxic lymphocytes by concanavalin A and concanavalin A-activated spleen cells, 356
—immune responses, regulation of mixed lymphocyte reactions by alloantigen-activated thymus-derived lymphocytes, 1588
— immunity to murine tumor allografts, separable populations of activated thymus-derived lymphocytes identified in two assays for, 267
— immunity, restoration to animals blocked by humoral response, 865
— lympholysis in mouse, genetic control of, 1534
Cells, blood, red. *See* Erythrocytes.
Cell-to-cell interaction in immune response, T-cell-dependent suppression in tolerant mice, 199
Cellular hypersensitivity, systemic, induced by intestinally absorbed antigen, 296
— immunity to herpes simplex virus mediated by interferon, 764
— and protective immune responses to idiotypic membrane determinants on cells from spontaneous lymphoma of NZB/NZW F_1 mice, 1547
Chagas' disease, immunology, rejection of allogeneic heart cells in vitro, 38
Chain isotype, heavy, immunoglobulin, commitment to, restriction of gene expression in B lymphocytes and their progeny, 452
—, light, variable region marker, mouse, genetic correlation with thymocyte surface antigen, 1432
— structure, three polypeptide, description, fourth component of human complement, 1324
Chains, light and heavy, independent synthesis of, 1112
Chromosome 7, human, carrying SV40 genome, positive control of transformed phenotype by, somatic cell hybrids between mouse peritoneal macrophages and SV40-transformed human cells, 1221
— markers, sex, identification of proliferating

lymphocyte subpopulation in human mixed leukocyte culture by, 54
Clonal character of F_1 hybrid lymphocyte subset recognition of parental cells in one-way mixed lymphocyte cultures, 370
— nature of immune response to phosphorylcholine, 673
Cobra factor and other C3-reactive agents, effect on thymus-dependent and thymus-independent antibody responses, 126
Colchicine, blockage of amyloid induction in animal model by, 1102
Collagenase secretion and neutral proteinase from rabbit synovial fibroblasts, stimulation by endocytosis of, 1482
Complement binding and antigen density, variation in susceptibility of human lymphoid cell line to immune lysis during cell cycle, lack of correlation with, 578
—, critical role in formation and biologic role of polyoma virus-antibody complexes, 549
—, human, fourth component, description of three polypeptide chain structure, 1324
— and IgG Fc, characterization of receptors for, and description of binding mechanism, 877
—, receptor for fourth component on human B lymphocytes and cultured human lymphoblastoid cells, 1336
—, role in induction of antibody production in vivo, 126
—, second component, evidence for linkage between HL-A histocompatibility genes and those involved in synthesis of, 1108
—, structural basis for binding by immunoglobulin M, 1117
—, system, interactions of C-reactive protein with, 631
Concanavalin A binding proteins of lymphoid cell surface, 597
— A and concanavalin A-activated spleen cells, suppression of generation of cytotoxic lymphocytes by, 356
— A, effects on mouse peritoneal macrophages, metabolism of endocytised proteins, and reversibility of effects by mannose, 1387
— A, effects on mouse peritoneal macrophages, stimulation of endocytic activity and inhibition of phago-lysosome formation, 1364
Cytolysis, cell-mediated, relation of products of activated lymphocytes to, 837
Cytolytic factor released by macrophages, evidence for, 1085
Cytotoxic activity in mixed lymphocyte culture, relationship of cell division to generation of, 1712
— lymphocytes, role of *H-2* lymphocyte-defined and serologically defined components in generation of, 1410
— lymphocytes, suppression of generation by concanavalin A and concanavalin A-activated spleen cells, 356
— lymphocytes, T, generation in vitro, 703, 718, 1511
Cytotoxicity, cell-dependent, antibody-mediated, new sensitivity assay for antibody against cell surface antigens based on inhibition of, specificity and sensitivity, 1348
—, cell-mediated, augmentation induced by radiation, 470
—, cell-mediated, synergy between subpopulations of mouse spleen cells in in vitro generation of, evidence for involvement of non-T cell, 1646

D

Deoxyribonucleic acid, release in circulating blood and induction of anti-DNA antibodies after injection of bacterial lipopolysaccharides, 1189
2,4-Dinitrophenyl ligands and menadione (vitamin K_3), strange cross-reaction between myeloma protein and conventional antibodies, 687
Disease, Chagas', immunology, rejection of allogeneic heart cells in vitro, 38
—, immunologic, and lymphoma, induction in (BALB/c × NZB)F_1 mice by Scripps leukemia virus, 1028

E

Electron microscopy and fluorescence, general procedure for simultaneous labeling of multiple cell surface antigens for, 523
— microscopy, scanning, of human lymphocyte-sheep erythrocyte rosettes, 146
Endocytic activity, stimulation, and inhibition of phago-lysosome formation, effects of concanavalin A on mouse peritoneal macrophages, 1364
Endocytised proteins, metabolism, and reversibility of effects by mannose, effects of concanavalin A on mouse peritoneal macrophages, 1387
Endocytosis, stimulation of collagenase secretion and neutral proteinase from rabbit synovial fibroblasts by, 1482
Endotoxin, meningococcal, role in meningococcal purpura, 159
— stimulation and phagocytosis, induction of macrophage plasminogen activator by, evidence for two-stage process, 995
Endotoxins, Hageman factor (factor XII) activation by, 797
Enzyme, activated, inhibition by α_1-antitrypsin, and isolation and characterization of human factor XI (PTA), 1615
—, lysosomal, immunologic discharge from human neutrophils, mediation by guanosine 3′,5′-monophosphate, requirement of calcium, and inhibition by adenosine 3′,5′-monophosphate, 225
Eosinophil granules, guinea pig, physiochemical

and biological properties of major basic protein from, 313
Erythrocyte, sheep, and human lymphocyte rosettes, scanning electron microscopy of, 146
Erythrocytes, sheep, and MOLT-4 cells, release of immunosuppressive factors from mixture of, 538
—, sheep, separate early generation of cells mediating IgM and IgG memory to, 333
Escherichia coli and other gram-negative bacteria, early and discrete changes in permeability during killing by granulocytes, 396

F

Fetal and neonatal mice, restricted heterogeneity of antibody response of B lymphocytes from, 1285
Fibrillar structures of normal cells and loss upon viral transformation, distribution of fibroblast surface antigen, 1522
Fibrils, amyloid, guinea pig, experimentally induced, isolation and identification by sequence analysis of, 871
Fibroblast surface antigen, distribution, 1522
Fibroblasts, synovial, rabbit, stimulation by endocytosis of collagenase secretion and neutral proteinase from, 1482
Fluorescence and electron microscopy, general procedure for simultaneous labeling of multiple cell surface antigens for, 523
Friend leukemia virus-induced splenomegaly, host genetic control of recovery from, mapping of gene within major histocompatibility complex, 1457

G

Gene expression in B lymphocytes and progeny, restriction of, 966
— expression, restriction in B lymphocytes and their progeny, commitment to immunoglobulin heavy chain isotype, 452
—, *Ir*, control in vitro, conditions for cooperative interactions between nonresponder parental B cells and primed (responder × nonresponder) F_1T cells in development of antibody responder under, 185
—, mapping within major histocompatibility complex, host genetic control of recovery from Friend leukemia virus-induced splenomegaly, 1457
—, single, that influences mitogenic and immunogenic responses to lipopolysaccharide, evidence for, 1147
Gene-controlled immune responses, *Ir*-histocompatibility-linked alloantiserum-mediated suppression of, 481
— immune systems, immune response, alloantiserum-induced inhibition of migration inhibition factor production in, 383
Genes, histocompatibility, HL-A, and those involved in synthesis of second component of complement, evidence for linkage between, 1108
—, I-region expressed on T and B lymphocytes, mixed lymphocyte reaction, 1317
—, *Ir-Re* and *Ir-GLT*, separation, characterization of new intra-*H-2* recombinant, 859
— in S and D regions of *H-2* complex, cooperative responses between lymphocytes derived from mouse donor strains differing at, 290
Genetic aspects of canine mixed leukocyte cultures, 825
— control of antibody response to poly-L(Tyr, Glu)-poly-D,L-Ala--Poly-L-Lys in C3H↔CWB tetraparental mice, 1660
— control of cell-mediated lympholysis in mouse, 1534
— control of immune response to poly-(tyrosyl, glutamyl)-poly-D,L-alanyl-poly-lysyl, antigen specific thymus cell factors in, 301
— control of immune response, in vitro stimulation of lymphocytes by (T,G)-A--L, (H,G)-A--L, and (Phe,G)-A--L, 977
—control of immune responses in vitro, 172, 185, 648
— control of responses to bacterial lipopolysaccharides in mice, 1147
— correlation of mouse light chain variable region marker with thymocyte surface antigen, 1432
— high and low responder mice, comparative analysis of antigen-binding T cells in, 1180
—, host, control of recovery from Friend leukemia virus-induced splenomegaly, mapping of gene within major histocompatibility complex, 1457
Genome, SV40, positive control of transformed phenotype by human chromosome 7 carrying, somatic cell hybrids between mouse peritoneal macrophages and SV40-transformed human cells, 1221
Glomerulonephritis, immune complex, of New Zealand mice, pathogenesis, and viral envelope glycoprotein of murine leukemia virus, 1011
L-Glutamic acid^{60}-L-alanine^{30}-L-tyrosine^{10} (GAT), tolerogenic properties for spleen cells from nonresponder (*H-2*^{g} and *H-2*^{q}) mice, 172
— acid and tyrosine attached to multichain polyalanine or polyproline, antibody response of inbred mouse strains to ordered tetrapeptides of, Tyr-Tyr-Glu-Glu is major determinant of random poly-(Tyr, Glu)-polyDLAla--polyLys, 349
Glycolipid, synthetic, with B-cell mitogenic activity, 1404
Glycoprotein, viral envelope, of murine leukemia virus and pathogenesis of immune complex glomerulonephritis of New Zealand mice, 1011
Grafts of agammaglobulinemic cells, transmission of immunodeficiency with, 1097
Granules, eosinophil, guinea pig, physiochemical and biological properties of major basic protein from, 313

Granulocytes, early and discrete changes in permeability of *Escherichia coli* and other gram-negative bacteria during killing by, 396
Growth factor, nerve, specific binding by murine C 1300 neuroblastoma cells, 437
Guanosine 3′,5′-monophosphate, mediation of immunologic discharge of lysosomal enzymes from human neutrophils by, requirement of calcium, and inhibition by adenosine 3′,5′-monophosphate, 225

H

Hageman factor (factor XII), activation by bacterial lipopolysaccharides (endotoxins), 797
— factor substrates, isolation and characterization of human factor XI (PTA) and inhibition of activated enzyme by α_1-antitrypsin, 1615
Hapten-sandwich labeling, general procedure for simultaneous labeling of multiple cell surface antigens for fluorescence and electron microscopy, 523
Hapten-specific IgM and IgG antibody responses, differential suppressive effect of carrier-primed T cells on, 239
Haptenic determinants required to elicit immediate-typed reactions in calf skin by separate or concurrent sensitization with reagins of different specificity, 1468
Heart cells, allogeneic, rejection in vitro, immunology of Chagas' disease, 38
Heat-aggregated or antigen-complexed immunoglobulin, human lymphocyte receptor for, 508
Hemagglutinin, influenza virus, antibody responses to antigenic determinants of, 1559, 1571
Herpes simplex virus, cellular immunity to mediated by interferon, 764
Histocompatibility antigens, strong, specific positive selection of lymphocytes reactive to, 660
— complex, major, mapping of gene within, host genetic control of recovery from Friend leukemia virus-induced splenomegaly, 1457
— genes, HL-A, and those involved in synthesis of second component of complement, evidence for linkage between, 1108
Histocompatibility-linked *Ir*-gene-controlled immune responses, alloantiserum-mediated suppression of, 481
Histoincompatible T and B lymphocytes, cell interactions between, 290
Host genetic control of recovery from Friend leukemia virus-induced splenomegaly, mapping of gene within major histocompatibility complex, 1457
Host-parasite interaction in rat renal pelvis, possible role for pili in pathogenesis of pyelonephritis, 1696
Humoral antibody, role in rejection of primary renal allografts in sheep, 619
— response, restoration of cell-mediated immunity to animals blocked by, 865
Hybrid lymphocyte, F_1, subset recognition of parental cells in one-way mixed lymphocyte cultures, clonal character of, 370
Hybrids, cell, somatic, between mouse peritoneal macrophages and SV40-transformed human cells, positive control of transformed phenotype by human chromosome 7 carrying SV40 genome, 1221
Hypersensitivity, cellular, systemic, induced by intestinally absorbed antigen, 296
Hyposideremia of acute inflammation, involvement of lactoferrin in, 1068
Hypothesis, bridging, of anaphylaxis, 1468

I

Ia determinants, presence of an allogeneic effect factor, activation of T and B lymphocytes in vitro, 1717
Idiotypic membrane determinants on cells from spontaneous lymphoma of NZB/NZW F_1 mice, protective and cellular immune responses to, 1547
— uniformity of binding site-associated antigenic determinants among mouse antiphosphorylcholine antibodies, 673
— uniformity of cell surface immunoglobulin in chronic lymphocytic leukemia, evidence for monoclonal proliferation, 1416
Immunity, cell-mediated, to murine tumor allografts, separable populations of activated thymus-derived lymphocytes identified in two assays for, 267
—, cell-mediated, restoration to animals blocked by humoral response, 865
—, cellular, to herpes simplex virus mediated by interferon, 764
Immunocompetent T lymphocytes, relevant, antialloantibody serum contains specific factors reacting with, 731
Immunodeficiency, transmission with grafts of agammaglobulinemic cells, 1097
Immunogenic and mitogenic responses to lipopolysaccharide, evidence for single gene that influences, 1147
Immunoglobulin, cell surface, identification of IgD-like molecule on surface of murine splenocytes, 1427
—, cell surface, idiotypic uniformity in chronic lymphocytic leukemia, evidence for monoclonal proliferation, 1416
—, heat-aggregated or antigen complexed, human lymphocyte receptor for, 508
— heavy chain isotype, commitment to, restriction of gene expression in B lymphocytes and their progeny, 452
— M, structural basis for binding of complement by, 1117
Immunoglobulins, membrane, of B lymphocytes, inability to detect characteristic IgM and IgD antigens, 895
Immunologic discharge of lysosomal enzymes

from human neutrophils, mediation by guanosine 3′,5′-monophosphate, requirement of calcium, and inhibition by adenosine 3′,5′-monophosphate, 225
— disease and lymphoma, induction in BALB/c × NZB)F_1 mice by Scripps leukemia virus, 1028
Immunological functions of human T-lymphoid cell line (MOLT), 538
— memory in mice, characteristics, separate early generation of cells mediating IgM and IgG memory to sheep erythrocytes, 333
— memory, thymus dependence of antibody formation and thymus independence of, 1559
— responses of mice to native protoplasmic polysaccharide and lipopolysaccharide, functional separation of two signals required to stimulate secondary antibody response, 1604
Immunology of Chagas' disease, rejection of allogeneic heart cells in vitro, 38
Immunopathogenicity and oncogenicity of murine leukemia viruses, 1028
Immunosuppressive factors, release from mixture of MOLT-4 cells and sheep red blood cells, 538
Inflammation, acute, involvement of lactoferrin in hyposideremia of, 1068
Influenza virus hemagglutinin, antibody responses to antigenic determinants of, 1559, 1571
Inheritance of antibody specificity, anti-(4-hydroxy-3-nitrophenyl)acetyl of mouse primary response, 1498
Inhibition of activated enzyme by α_1-antitrypsin, isolation and characterization of human factor XI (PTA), 1615
— by adenosine 3′,5′-monophosphate, and calcium requirement in mediation of immunologic discharge of lysosomal enzymes from human neutrophils by guanosine 3′,5′-monophosphate, 225
—, alloantiserum-induced, of migration inhibition factor production in immune response gene-controlled immune systems, 383
— of cell-dependent antibody-mediated cytotoxicity, new sensitive assay for antibody against cell surface antigens based on, specificity and sensitivity, 1348
— of phago-lysosome formation and stimulation of endo :ytic activity, effects of concanavalin A on mouse peritoneal macrophages, 1364
Interferon, cellular immunity to herpes simplex virus mediated by, 764
Intestinally absorbed antigen, systemic, cellular hypersensitivity induced by, 296
Intracellular cyclic AMP, process of human T lymphocyte "E" rosette function modulated by, 1122
Isotype, heavy chain, immunoglobulin, commitment to, restriction of gene expression in B lymphocytes and their progeny, 452

K

Kidney allografts, primary, in sheep, role of humoral antibody in rejection of, 619
— deposition of soluble immune complexes in mice bearing B-16 melanoma, characterization of complexes and relationship to tumor progress, 410
— pelvis, rat, host-parasite interaction in, possible role for pili in pathogenesis of pyelonephritis, 1696

L

Lactoferrin, involvement in hyposideremia of acute inflammation, 1068
Lectin-treated and normal lymphocytes, capping, cell movement, and microtubular function in, ligand-induced movement of lymphocyte membrane macromolecules, 1207
Leukemia cells, basophilic, rat, interaction of IgE with, quantitative aspects of binding reaction, 1676
— cells and thymocytes, mouse, fate of thymus-leukemia antigen-antibody complexes following modulation of TL antigenicity from surfaces of, 939
—, Friend, virus-induced, splenomegaly, host genetic control of recovery from, mapping of gene within major histocompatibility complex, 1457
—, lymphocytic, chronic, idiotypic uniformity of cell surface immunoglobulin in, evidence for monoclonal proliferation, 1416
— virus, murine, viral envelope glycoprotein, and pathogenesis of immune complex glomerulonephritis of New Zealand mice, 1011
— virus pseudotypes, gross, reduction of tumor regression in AKR and C58 mice associated with appearance of, 1162
— viruses, murine, immunopathogenicity and oncogenicity, 1028
Leukocyte alloantigens, suppression of primary IgM and IgG plaque-forming cell responses in vitro by alloantisera against, 921
— culture, human, mixed, identification of proliferating lymphocyte subpopulation by sex chromosome markers, 54
— cultures, canine, mixed, genetic aspects of, 825
— cultures, long-term, effect of repeated exposure to alloantigens on cytotoxic activity of, 718
— cultures, long-term mixed, velocity sedimentation studies of differentiation and fate of effector cells in, 1511
— cultures, mixed, response of normal and immune mouse spleen cells in, 703
Ligand-induced movement of lymphocyte membrane macromolecules, capping, cell movement, and microtubular function in normal and lectin-treated lymphocytes, 1207
Ligands, 2,4-dinitrophenyl, and menadione (vitamin K_3), strange cross-reaction with mye-

loma protein and conventional antibodies, 687
Lipopolysaccharide and polysaccharide, protoplasmic, native, immunological responses of mice to, functional separation of two signals required to stimulate secondary antibody response, 1604
Lipopolysaccharides, bacterial (endotoxins), Hageman factor (factor XII), activation by, 797
—, bacterial, in mice, genetic control of responses to, 1147
—, bacterial, release of DNA in circulating blood and induction of anti-DNA antibodies after injection of, 1189
Lung diseases, human interstitial, pathogenesis of laboratory model resembling, 105
— tissue and cells, human, formation of slow-reacting substance of anaphylaxis in before release, 1133
Lymphoblastoid cells, human, binding of soluble immune complexes to, 1230
— cells, human, binding of soluble immune complexes to, characterization of receptors for IgG, Fc and complement and description of binding mechanism, 877
— cells, human, cultured, and human B lymphocytes, receptor for fourth component of complement on, 1336
Lymphocyte, bone marrow-derived, memory phenomenon modulated by thymus-derived lymphocytes, original antigenic sin, 1571
— culture, mixed, relationship of cell division to generation of cytotoxic activity in, 1712
— culture, mixed, stimulation, role of *Ir*-associated alloantigens in, 853
— function, B, ontogeny, 1285
— human, and sheep erythrocyte rosettes, scanning electron microscopy of, 146
—, human, T, "E" rosette function, process modulated by intracellular cyclic AMP, 1122
—, hybrid F_1, subset recognition of parental cells in one-way mixed lymphocyte cultures, clonal character of, 370
— membrane macromolecules, ligand-induced movement of, capping, cell movement, and microtubular function in normal and lectin-treated lymphocytes, 1207
— reaction, mixed, regulation by alloantigen-activated thymus-derived lymphocytes, 1588
— receptor, human, for heat-aggregated or antigen-complexed immunoglobulin, 508
— subpopulation, proliferating, identification in human mixed leukocyte culture by sex chromosome markers, 54
Lymphocyte-defined and serologically-defined *H-2* components, role in generation of cytotoxic lymphocytes, 1410
Lymphocyte-macrophage clusters in immune response to soluble protein antigen in vitro, 1245
— clusters in immune response to soluble protein antigen in vitro, ultrastructure of clusters formed during early response, 1260
Lymphocytes, activated, relation of products to cell-mediated cytolysis, 837
— alloantigen-activated and thymus-derived regulation of mixed lymphocyte reactions by, 1588
—, B, and alloantigens, evidence for identity or close association of Fc receptor determined by *Ir* region of *H-2* complex, 779
—, B, membrane immunoglobulins of, inability to detect characteristic IgM and IgD antigens, 895
—, B, and progeny, restriction of gene expression in, 966
—, B, and progeny, restriction of gene expression in, commitment to immunoglobulin heavy chain isotype, 452
—, cytotoxic, role of *H-2* lymphocyte-defined and serologically-defined components in generation of, 1410
—, cytotoxic, suppression of generation by concanavalin A and concanavalin A-activated spleen cells, 356
—, cytotoxic, T, generation in vitro, 703, 718, 1511
—, human B, and cultured human lymphoblastoid cells, receptor for fourth component of complement on, 1336
—, human, T and B, highly purified, mediator production by, 1303
—, T and B, I-region genes expressed on, mixed lymphocyte reaction, 1317
—, human, T and B, selective triggering in vitro by polyclonal mitogens, 1
—, in vitro stimulation by (T,G)-A--L, (H,G)-A--L, and (Phe,G)-A--L, 977
—, memory, reactive to transplantation antigens, in vitro generation of, 1057
—, normal, cell-bound receptors for alloantigens on, 731
— reactive to strong histocompatibility antigens, specific positive selection of, 660
—, T, differentiation pathway, evidence for two differentiated cell types, 566
—, T and B, activation in vitro, biological and biochemical properties of an allogeneic effect factor active in triggering specific B lymphocytes, 19
—, T and B, activation in vitro, presence of Ia determinants on allogeneic effect factor, 1717
—, T and B, histoincompatible, cell interactions between, 290
—, thymus-derived, activated, separable populations identified in two assays for cell-mediated immunity to murine tumor allografts, 267
—, thymus-derived, cytotoxic generation in vitro, 703, 718, 1511
—, thymus-derived, evidence for expression of Ia(*H-2* associated) antigens on, 1273
—, thymus-derived, selective roles in antibody response, 239, 253
Lymphokine synthesis, B-cell, induction by formity of cell surface immunoglobulin in, evidence for monoclonal proliferation, 1416

Lymphoid cell line, human, variation in susceptibility to immune lysis during cell cycle, 578
— cell surface, concanavalin A binding proteins of, 597
—, T-, cell line, human (MOLT), immunological functions of, 538
Lymphokine synthesis, B-cell, induction by mitogenic and nonmitogenic signals to Fc, Ig, and C3 receptors, 1631
Lympholysis, cell-mediated, in mouse, genetic control of, 1534
Lymphoma and immunologic disease, induction in (BALB/c × NZB)F_1 mice by Scripps leukemia virus, 1028
—, spontaneous, of NZB/NZW F_1 mice, protective and cellular immune responses to idiotypic membrane determinants on cells from, 1547
Lysosomal enzymes, immunologic discharge from human neutrophils, mediation by guanosine 3′,5′-monophosphate, requirement of calcium, and inhibition by adenosine 3′,5′-monophosphate, 225

M

Macromolecules, lymphocyte membrane, ligand-induced movement of, capping, cell movement, and microtubular function in normal and lectin-treated lymphocytes, 1207
— plasminogen activator, induction by endotoxin stimulation and phagocytosis, evidence for two-stage process, 995
Macrophage-lymphocyte clusters in immune response to soluble protein antigen in vitro, 1245
— clusters in immune response to soluble protein antigen in vitro, ultrastructure of clusters formed during early response, 1260
Macrophages, evidence for cytolytic factor released by, 1085
—, peritoneal, mouse, effects of concanavalin A, metabolism of endocytised proteins and reversibility of effects by mannose, 1387
—, peritoneal, mouse, effects of concanavalin A, stimulation of endocytic activity and inhibition of phago-lysosome formations, 1364
—, peritoneal, mouse, and SV40-transformed human cells, somatic cell hybrids between, positive control of transformed phenotype by human chromosome 7 carrying SV40 genome, 1221
Man, blood monocytes, mechanism of endogenous pyrogen production, 954
—, cells, SV40-transformed, and mouse peritoneal macrophages, somatic cell hybrids between, positive control of transformed phenotype by human chromosome 7 carrying SV40 genome, 1221
—, complement, fourth component, description of three polypeptide chain structure, 1324
—, factor XI (PTA), isolation and characterization and inhibition of activated enzyme by α_1-antitrypsin, 1615
Man, interstitial lung diseases, pathogenesis of laboratory model resembling, 105
—, lung tissue and cells, formation of slow-reacting substance of anaphylaxis in before release, 1133
—, lymphoblastoid cells, binding of soluble immune complexes to, 1230
—, lymphoblastoid cells, binding of soluble immune complexes to, characterization of receptors for IgG Fc and complement and description of binding mechanism, 877
—, lymphocyte receptor for heat-aggregated or antigen-complexed immunoglobulin, 508
—, lymphocyte-sheep erythrocyte rosettes, scanning electron microscopy of, 146
—, lymphocytes, B, and cultured human lymphoblastoid cells, receptor for fourth component of complement on, 1336
—, lymphocytes, T and B, highly purified, mediator production by, 1303
—, lymphocytes, T and B, selective triggering in vitro by polyclonal mitogens, 1
—, lymphoid cell line, variation in susceptibility to immune lysis during cell cycle, 578
—, mixed leukocyte culture, identification of proliferating lymphocyte subpopulation by sex chromosome markers, 54
—, neutrophils, mediation of immunologic discharge of lysosomal enzymes from by guanosine 3′,5′-monophosphate, 225
—, plasmacyte cell line derived from patient with IgD multiple myeloma, long-term establishment of, 494
—, T lymphocyte "E" rosette function, process modulated by intracellular cyclic AMP, 1122
—, T-lymphoid cell line (MOLT), immunological functions of, 538
Mannose, metabolism of endocytised proteins and reversibility of effects by, effects of concanavalin A on mouse peritoneal macrophages, 1387
Marrow-derived, bone, cell lymphokine, synthesis, induction by mitogenic and nonmitogenic signals to Fc,Ig, and C3 receptors, 1631
—, bone, cell maturation, model for, 742
—, cell, mitogenic activity, synthetic glycolipid with, 1404
—, bone, cells, parental, nonresponder, and primed (responder × nonresponder) F_1T cells, conditions for cooperative interactions between in development of antibody response under *Ir* gene control in vitro, 185
—, bone, lymphocyte memory phenomenon modulated by thymus-derived lymphocytes, original antigenic sin, 1571
—, bone, lymphocyte, ontogeny of function, 1285
—, bone, lymphocytes and alloantigens, evidence for identity or close association of Fc receptor determined by *Ir* region of *H-2* complex, 779
—, bone, lymphocytes, human, and cultured

human lymphoblastoid cells, receptor for fourth component of complement on, 1336
—, bone, lymphocytes, membrane immunoglobulins of, inability to detect characteristic IgM and IgD antigens, 895
—, bone, lymphocytes, and progeny, restriction of gene expression in, 966
—, bone, lymphocytes and progeny, restriction of gene expression in, commitment to immunoglobulin heavy chain isotype, 452
—, bone, and thymus-derived human lymphocytes, selective triggering in vitro by polyclonal mitogens, 1
—, bone, and thymus-derived lymphocytes, activation in vitro, 19
—, bone, and thymus-derived lymphocytes, highly purified, mediator production by, 1303
—, bone, and thymus-derived lymphocytes, histoincompatible, cell interactions between, 290
—, bone, and thymus-derived lymphocytes, I-region genes expressed on, mixed lymphocyte reaction, 1317
Maturation, B-cell, model for, 742
Melanoma, B-16, renal deposition of soluble immune complexes in mice bearing, characterization of complexes and relationship to tumor progress, 410
Membrane determinants, idiotypic, on cells from spontaneous lymphoma of NZB/NZW F_1 mice, protective and cellular immune responses to, 1387
— immunoglobulins of B lymphocytes, inability to detect characteristic IgM and IgD antigens, 895
— macromolecules, lymphocyte, ligand-induced movement of, capping, cell movement, and microtubular function in normal and lectin-treated lymphocytes, 1207
— protein, outer, of *Neisseria meningitidis*, group B, responsible for serotype specificity, 87
Membranes of different plasma cell precursors, endogenous IgA and IgM on, 966
Memory, immunological, in mice, characteristics, separate early generation of cells mediating IgM and IgG memory to sheep erythrocytes, 333
—, immunological, thymus dependence of antibody formation and thymus independence of, 1559
— lymphocytes reactive to transplantation antigens, in vitro generation of, 1057
— phenomenon, lymphocyte, bone marrow-derived, modulated by thymus-derived lymphocytes, original antigenic sin, 1571
Menadione, (vitamin K_3), and 2,4-dinotrophenyl ligands, strange cross-reaction with myeloma protein and conventional antibodies, 687
Meningococcal endotoxin, role in meningococcal purpura, 159
Metabolism of endocytised proteins and reversibility of effects by mannose, effects of concanavalin A on mouse peritoneal macrophages, 1387
Microscopy, electron, and fluorescence, general procedure for simultaneous labeling of multiple cell surface antigens for, 523
—, electron, scanning, of human lymphocyte-sheep erythrocyte rosettes, 146, 383
Microtubular function, capping, and cell movement in normal and lectin-treated lymphocytes, ligand-induced movement of lymphocyte membrane macromolecules, 1207
Migration inhibition factor production in immune response gene-controlled immune systems, alloantiserum-induced inhibition of, 383
Mitogenic activity, B-cell, synthetic glycolipid with, 1404
— and immunogenic responses to lipopolysaccharide, evidence for single gene that influences, 1147
— and nonmitogenic signals to Fc, Ig, and C3 receptors, induction of B-cell lymphokine synthesis by, 1631
Mitogens, polyclonal, selective triggering of human T and B lymphocytes in vitro by, 1
Model, animal, blockage of amyloid induction by colchicine in, 1102
—, laboratory, resembling human interstitial lung diseases, pathogenesis, 105
Molecule, IgD-like, on surface of murine splenocytes, identification of, 1427
Monoclonal proliferation, evidence for in idiotypic uniformity of cell surface immunoglobulin in chronic lymphocytic leukemia, 1416
Monocytes, blood, human, mechanism of endogenous pyrogen production, 954
Monophosphate, 3′,5′-, adenosine, inhibition by, and calcium requirement in mediation of immunologic discharge of lysosomal enzymes from human neutrophils by guanosine 3′,5′-monophosphate, 225
—, 3′,5′-, guanosine, mediation of immunologic discharge of lysosomal enzymes from human neutrophils by, requirement of calcium, and inhibition by adenosine 3′,5′-monophosphate, 225
Mutants B6.C-H(z1B6.M505, serological distinction from strain C57BL/6, 1127
— of nonproducer cell lines transformed by murine sarcoma virus, detection and characterization of RNA specific for helper and sarcoma viruses, 218
Myeloma, multiple, IgD, long-term establishment of human plasmacyte cell line derived from patient with, 494
— protein and conventional antibodies, strange cross-reaction of menadione (vitamin K_3) and 2,4-dinitrophenyl ligands with, 687
— variants, mouse, quantitation of light chain production by, 1112

N

Neisseria meningitidis, group B, outer membrane protein responsible for serotype specificity, 87
Neonatal and fetal mice, restricted heterogeneity of antibody response of B lymphocytes from, 1285
Nerve growth factor, specific binding by murine C 1300 neuroblastoma cells, 437
Neuroblastoma cells, murine C 1300, specific binding of nerve growth factor by, 437
Neutrophil-dependent pathway for generation of neutral peptide mediator, partial characterization of components and control by α-1-antitrypsin, 812
Neutrophils, human, mediation of immunologic discharge of lysosomal enzymes from by guanosine 3′,5′-monophosphate, requirement of calcium, and inhibition by adenosine 3′,5′-monophosphate, 225
Nucleic acid, deoxyribo-, release in circulating blood and induction of anti-DNA antibodies after injection of bacterial lipopolysaccharides, 1189
— acid, ribo-, specific for helper and sarcoma viruses, detection and characterization, 218

O

Oncogenicity and immunopathogenicity of murine leukemia viruses, 1028
Ontogeny of B-lymphocyte function, 1285

P

Parabiosis, restoration of immune competence in tolerant mice to normal mice by, 1421
Parasite-host interaction in rat renal pelvis, possible role for pili in pathogenesis of pyelonephritis, 1696
Parental cells in one-way mixed lymphocyte cultures, clonal character of F_1 hybrid lymphocyte subset recognition of, 370
Pathogenesis of immune complex glomerulonephritis of New Zealand mice, and viral envelope glycoprotein of murine leukemia virus, 1011
— of laboratory model resembling human interstitial lung diseases, 105
— of pyelonephritis, possible role for pili in, host-parasite interaction in rat renal pelvis, 1696
Pelvis, renal, rat, host-parasite interaction in, possible role for pili in pathogenesis of pyelonephritis, 1696
Peptide mediator, neutral, neutrophil-dependent pathway for generation of, partial characterization of components and control by α-1-antitrypsin, 812
Peritoneal macrophages, mouse, effects of concanavalin A, metabolism of endocytised proteins and reversibility of effects by mannose, 1387
— macrophages, mouse, effects of concanavalin A, stimulation of endocytic activity and inhibition of phago-lysosome formation, 1364
— macrophages, mouse, and SV40-transformed human cells, somatic cell hybrids between, positive control of transformed phenotype by human chromosome 7 carrying SV40 genome, 1221
Phagocytosis and endotoxin stimulation, induction of macrophage plasminogen activator by, evidence for two-stage process, 995
Phago-lysosome formation, inhibition, and stimulation of endocytic activity, effects of concanavalin A on mouse peritoneal macrophages, 1364
Phenotype, transformed, positive control by human chromosome 7 carrying SV40 genome, somatic cell hybrids between mouse peritoneal macrophages and SV40-transformed human cells, 1221
Phosphorylcholine, clonal nature of immune response to, 673
Pili, possible role in pathogenesis of pyelonephritis, host-parasite interaction in rat renal pelvis, 1696
Plaque-forming cell responses, IgM and IgG, primary, suppression in vitro by alloantisera against leukocyte alloantigens, 921
Plasma cell precursors, different, endogenous IgA and IgM on membranes of, 966
Plasmacyte cell line, human, derived from patient with IgD multiple myeloma, long-term establishment of, 494
Plasminogen activator, macrophage, induction by endotoxin stimulation and phagocytosis, evidence for two-stage process, 995
Polyalanine or polyproline, multichain, antibody response of inbred mouse strains to ordered tetrapeptides of tyrosine and glutamic acid attached to, Tyr-Tyr-Glu-Glu is major determinant of random poly-(Tyr,Glu)-polyDLAla--polyLys, 349
Polyclonal mitogens, selective triggering of human T and B lymphocytes in vitro by, 1
Polyoma virus-antibody complexes, formation and biologic role, critical role for complement, 549
Polypeptide, three, chain structures, description, fourth component of human complement, 1324
Polyproline or polyalanine, multichain, antibody response of inbred mouse strains to ordered tetrapeptides of tyrosine and glutamic acid attached to, Tyr-Tyr-Glu-Glu is major determinant of random poly-(Tyr,Glu)-polyDLAla--polyLys, 349
Polysaccharide and lipopolysaccharide, protoplasmic, native, immunological responses of mice to, functional separation of two signals required to stimulate secondary antibody response, 1604
Pressor activity of angiotensin I, systemic, role of extrapulmonary conversion in mediating, 79

Properdin factor D, activation to $\bar{D}$ by properdin, 426
Protamine-induced consumption of complement in acute phase sera, 631
Protein antigen, soluble, macrophage-lymphocyte clusters in immune response in vitro, 1245
— antigen, soluble, macrophage-lymphocyte clusters in immune response in vitro, ultrastructure of clusters formed during early response, 1260
—, C-reactive, interactions with complement system, 631
—, major basic, from guinea pig eosinophil granules, physiochemical and biological properties of, 313
—, membrane, outer, of *Neisseria meningitidis*, group B, responsible for serotype specificity, 87
—, myeloma, and conventional antibodies, strange cross-reaction of menadione (vitamin K_3) and 2,4-dinitrophenyl ligands with, 687
Proteinase, neutral, and collagenase secretion from rabbit synovial fibroblasts, stimulation by endocytosis of, 1482
Proteins, endocytised, metabolism, and reversibility of effects by mannose, effects of concanavalin A on mouse peritoneal macrophages, 1387
—, of lymphoid cell surface, concanavalin A binding, 597
Protoplasmic polysaccharide and lipopolysaccharide, native, immunological responses of mice to, functional separation of two signals required to stimulate secondary antibody response, 1604
Purpura, meningococcal, role of meningococcal endotoxin in, 159
Pyelonephritis, pathogenesis, possible role for pili in, host-parasite interaction in rat renal pelvis, 1696
Pyrogen production, endogenous, mechanism, human blood monocytes, 954

R

Radiation, augmentation of cell-mediated cytotoxicity induced by, 470
Reagins of different specificity, haptenic determinants required to elicit immediate-typed reactions in calf skin by separate or concurrent sensitization with, 1468
Receptor, Fc, of B lymphocytes and alloantigens, evidence for identity or close association determined by *Ir* region of *H-2* complex, 779
— for fourth component of complement on human B lymphocytes and cultured human lymphoblastoid cells, 1336
—, human lymphocyte, for heat-aggregated or antigen-complexed immunoglobulin, 508
Receptors, cell-bound, for alloantigens on normal lymphocytes, 731
Fc, Ig, and C3, induction of B-cell lymphokine synthesis by mitogenic and nonmitogenic signals to, 1631
— for IgG, Fc, and complement, characterization, and description of binding mechanism, 877
—, T-cell, for alloantigens, spontaneous release of, 603
Renal. *See* Kidney.
Ribonucleic acid, deoxy-, release in circulating blood and induction of anti-DNA antibodies after injection of bacterial lipopolysaccharides, 1189
— acid specific for helper and sarcoma viruses, detection and characterization of, 218
Rosette function, "E," human T lymphocyte, process modulated by intracellular cyclic AMP, 1122
Rosettes, human lymphocyte-sheep erythrocyte, scanning electron microscopy of, 146

S

Sarcoma I, enhancement induced by IgM, IgG1, and IgG2, 591
— virus, murine, in AKR and C58 mice, tumor induction by, reduction of tumor regression associated with appearance of gross leukemia virus pseudotypes, 1162
— virus, murine, mutants of nonproducer cell lines transformed by, detection and characterization of RNA specific for helper and sarcoma viruses, 218
Scanning electron microscopy of human lymphocyte-sheep erythrocyte rosettes, 146
Scripps leukemia virus, induction of immunologic disease and lymphoma in (BALB/c × NZB)F_1 mice by, 1028
Secretion, collagenase, and neutral proteinase from rabbit synovial fibroblasts, stimulation by endocytosis of, 1482
Sedimentation, velocity, studies of differentiation and fate of effector cells in long-term mixed leukocyte cultures, 1511
Sensitive assay, new, for antibody against cell surface antigens based on inhibition of cell-dependent antibody-mediated cytotoxicity, specificity and sensitivity, 1348
Sensitivity and specificity of new sensitive assay for antibody against cell surface antigens based on inhibition of cell-dependent antibody-mediated cytotoxicity, 1348
Sensitization, separate or concurrent, with reagins of different specificity, haptenic determinants required to elicit immediate-typed reactions in calf skin by, 1468
Sera, acute phase, protamine-induced consumption of complement in, 631
—, animal and human, use of Raji cells to detect circulating immune complexes in, 1230
Serological distinction of mutants B6.C-H-(z1)B6.M505 from strain C57BL/6, 1127
Serologically-defined and lymphocyte-defined

H-2 components, role in generation of cytotoxic lymphocytes, 1410
Serotype specificity, outer membrane protein of *Neisseria meningitidis*, group B, responsible for, 87
Serum, antialloantibody, contains specific factors reacting with relevant immunocompetent T lymphocytes, 731
Sex chromosome markers, identification of proliferating lymphocyte subpopulation in human mixed leukocyte culture by, 54
Skin, calf, haptenic determinants required to elicit immediate-typed reactions by separate or concurrent sensitization with reagins of different specificity in, 1468
Somatic cell hybrids between mouse peritoneal macrophages and SV40-transformed human cells, positive control of transformed phenotype by human chromosome 7 carrying SV40 genome, 1221
Specific, antigen, T-cell factor in cell cooperation, physical properties and mapping in left-hand (K) half *H-2*, 1579
—, antigen-, thymus cell factors in genetic control of immune response to poly-(tyrosyl, glutamyl)-poly-DL-alanyl--poly-lysyl, 301
— B lymphocytes, biological and biochemical properties of allogeneic effect factor active in triggering, 19
— binding of nerve growth factor by murine C 1300 neuroblastoma cells, 437
— factors reacting with relevant immunocompetent T lymphocytes, antialloantibody serum contains, 731
—, hapten-, IgM and IgG antibody responses, differential suppressive effect of carrier-primed T cells on, 239
— positive selection of lymphocytes reactive to strong histocompatibility antigens, 660
Specificity, antibody, inheritance, anti-(4-hydroxy-3-nitrophenyl)acetyl of mouse primary response, 1498
—, different, haptenic determinants required to elicit immediate-typed reactions in calf skin by separate or concurrent sensitization with reagins of, 1468
— and sensitivity of new sensitive assay for antibody against cell surface antigens based on inhibition of cell-dependent antibody-mediated cytotoxicity, 1348
—, serotype, outer membrane protein of *Neisseria meningitidis*, group B, responsible for, 87
Spleen cells, concanavalin A and concanavalin A-activated, suppression of generation of cytotoxic lymphocytes by, 356
— cells, mouse, normal and immune, response in mixed leukocyte cultures, 703
— cells, mouse, synergy between subpopulations in in vitro generation of cell-mediated cytotoxicity, evidence for involvement of non-T cell, 1646
— cells from nonresponder ($H\text{-}2^s$ and $H\text{-}2^q$) mice, tolerogenic properties of terpolymer L-glutamic acid^{60}-L-alanine^{30}-L-tyrosine^{10}(GAT) for, 172
Splenocytes, murine, identification of IgD-like molecule on surface of, 1427
Splenomegaly, virus-induced, Friend leukemia, host genetic control of recovery from, mapping of gene within major histocompatibility complex, 1457
Stimulation of endocytic activity and inhibition of phago-lysosome formation, effects of concanavalin A on mouse peritoneal macrophages, 1364
— by endocytosis of collagenase secretion and neutral proteinase from rabbit synovial fibroblasts, 1482
—, endotoxin, and phagocytosis, induction of macrophage plasminogen activator by, evidence for two-stage process, 995
— in vitro of lymphocytes by (T,G)-A--L, (H,G)-A--L, and (Phe,G)-A--L, 977
—, mixed lymphocyte culture, role of *Ir*-associated alloantigens in, 853
— of suppressor T cells in nonresponder mice by terpolymer L-glutamic acid^{60}-L-alanine^{30}-L-tyrosine^{10}(GAT), 648
Susceptibility of human lymphoid cell line to immune lysis during cell cycle, variation in, 578
Synergy between subpopulations of mouse spleen cells in in vitro generation of cell-mediated cytotoxicity, evidence for involvement of non-T cell, 1646
Synovial fibroblasts, rabbit, stimulation by endocytosis of collagenase secretion and neutral proteinase from, 1482

T

Teratoma, testicular, mouse, cell surface antigens of, 61
Terpolymer L-glutamic acid^{60}-L-alanine^{30}-L-tyrosine^{10}(GAT), stimulation of suppressor T cells in nonresponder mice by, 648
—, L-glutamic acid^{60}-L-alanine^{30}-L-tyrosine^{10} (GAT), tolerogenic properties for spleen cells from nonresponder ($H\text{-}2^s$ and $H\text{-}2^q$) mice, 172
Testicular teratoma, mouse, cell surface antigens of, 61
Tetrapeptides, ordered, of tyrosine and glutamic acid attached to multichain polyalanine or polyproline, antibody response of inbred mouse strains to, Tyr-Tyr-Glu-Glu is major determinant of random poly-(Tyr,Glu)-poly-DLAla--polyLys, 349
Thymocyte surface antigen, genetic correlation of mouse light chain variable region marker with, 1432
Thymocytes and leukemia cells, mouse, fate of thymus-leukemia antigen-antibody complexes following modulation of TL antigenicity from surfaces of, 939
Thymus cell factors, antigen-specific, in genetic

control of immune response to poly-(tyrosyl, glutamyl)-poly-D, L-alanyl--poly-lysyl, 301
— dependence of antibody formation and thymus independence of immunological memory, 1559
Thymus-dependent and thymus-independent antibody responses, effect of cobra factor and other C3-reactive agents on, 126
Thymus-derived and bone marrow-derived human lymphocytes, selective triggering in vitro by polyclonal mitogens, 1
— and bone marrow-derived lymphocytes, activation in vitro, biological and biochemical properties of an allogeneic effect factor active in triggering specific B lymphocytes, 19
— and bone marrow-derived lymphocytes, highly purified, mediator production by, 1303
— and bone marrow-derived lymphocytes, histoincompatible, cell interactions between, 290
— and bone marrow-derived lymphocytes, activation in vitro, presence of Ia determinants on allogeneic effect factor, 1717
— and bone marrow-derived lymphocytes, I-region genes expressed on, mixed lymphocyte reaction, 1317
— cell factor, antigen specific, in cell cooperation, physical properties and mapping in left-hand (K) half of *H-2*, 1579
— cell-dependent suppression in tolerant mice, 199
— cell receptors for alloantigens, spontaneous release of, 603
— cells, antigen-binding, in genetic high and low responder mice, comparative analysis, 1180
— cells, suppressor, stimulation in nonresponder mice by terpolymer L-glutamic acid^{60}-L-alanine^{30}-L-tyrosine^{10}(GAT), 648
— human lymphocyte "E" rosette formation, process modulated by intracellular cyclic AMP, 1122
— lymphocyte, human, "E" rosette function, process modulated by intracellular cyclic AMP, 1122
— lymphocytes, activated, separable populations identified in two assays for cell-mediated immunity to murine tumor allografts, 267
— lymphocytes, alloantigen-activated, regulation of mixed lymphocyte reactions by, 158b
— lymphocytes, bone marrow-derived lymphocyte memory phenomenon modulated by, original antigenic sin, 1571
— lymphocytes, cytotoxic, generation in vitro, 703, 718, 1511
— lymphocytes, differentiation pathway, evidence for two differentiated cell types, 566
— lymphocytes, evidence for expression of Ia(*H-2* associated) antigens on, 1273
— lymphocytes, immunocompetent, relevant, antialloantibody serum contains specific factors reacting with, 731
— lymphocytes, selective roles in antibody response, 239, 253
Thymus-derived and bone marrow-derived human lymphocytes, lymphoid cell line (MOLT), human, immunological functions of, 538
—, non-, cell, evidence for involvement in synergy between subpopulations of mouse spleen cells in in vitro generation of cell-mediated cytotoxicity, 1646
Thymus-independent and thymus-dependent antibody responses, effect of cobra factor and other C3-reactive agents on, 126
Thymus-leukemia antigen-antibody complexes, fate following modulation of TL antigenicity from surfaces of mouse leukemia cells and thymocytes, 939
Thyroglobulin, role of autoantibody to, interstitial immune complex thyroiditis in mice, 1439
Thyroiditis in mice, interstitial immune complex, role of autoantibody to thyroglobulin, 1439
Tissue and cells, lung, human, formation of slow-reacting substance of anaphylaxis in before release, 1133
— culture, requirement of plasmacyte-stimulating factor for proliferation of myeloma cells in, 494
Tolerogenic properties of terpolymer L-glutamic acid^{60} -L-alanine^{30} -L-tyrosine^{10} (GAT) for spleen cells from nonresponder (*H-2*^{s} and *H-2*^{q}) mice, 172
Transformation, viral, fibrillar structures of normal cells and loss upon, distribution of fibroblast surface antigens, 1522
Transmission of immunodeficiency with grafts of agammaglobulinemic cells, 1097
Transplantation antigens, in vitro generation of memory lymphocytes reactive to, 1057
Triggering, selective, of human T and B lymphocytes in vitro by polyclonal mitogens, 1
— specific B lymphocytes, biological and biochemical properties of allogeneic effect factor active in, 19
Tumor allografts, murine, separable populations of activated thymus-derived lymphocytes identified in two assays for cell-mediated immunity to, 267
— cells, identification of antigen physically associated with *H-2* antigens on, 61
— enhancement in mice, enhancement of sarcoma I induced by IgM, IgG1, and IgG2, 591
— induction by murine sarcoma virus in AKR and C58 mice, reduction of tumor regression associated with appearance of gross leukemia virus pseudotypes, 1162
— progress, characterization of soluble immune complexes in mice bearing B-16 melanoma and relationship to, 410
Tumors in BALB/c mouse, IgM producing, model for B-cell maturation, 742
Tyrosine and glutamic acid attached to multichain polyalanine or polyproline, antibody response of inbred mouse strains to ordered tetrapeptides of, Tyr-Tyr-Glu-Glu is major

determinant of random poly-(Tyr,Glu)-poly-DLAla--polyLys, 349

V

Viral envelope glycoprotein of murine leukemia virus and pathogenesis of immune complex glomerulonephritis of New Zealand mice, 1011
— transformation, fibrillar structures of normal cells and loss upon, distribution of fibroblast surface antigen, 1522
Virus, herpes simplex, cellular immunity to mediated by interferon, 764
—, influenza, hemagglutinin, antibody responses to antigenic determinants of, 1559, 1571
—, leukemia, murine, viral envelope glycoprotein, and pathogenesis of immune complex glomerulonephritis of New Zealand mice, 1011
—, leukemia, Scripps, induction of immunologic disease and lymphoma in (BALB/c × NZB)F_1 mice by, 1028
—, polyoma, and antibody complexes, formation and biologic role, critical role for complement, 549
—, sarcoma, murine, in AKR and C58 mice, tumor induction by, reduction of tumor regression associated with appearance of gross leukemia virus pseudotypes, 1162
—, sarcoma, murine, mutants of nonproducer cell lines transformed by, detection and characterization of RNA specific for helper and sarcoma viruses, 218
Virus-induced splenomegaly, Friend leukemia, host genetic control of recovery from, mapping of gene within major histocompatibility complex, 1457
Viruses, leukemia, murine, immunopathogenicity and oncogenicity, 1028
Vitamin K_3 and 2,4-dinitrophenyl ligands, strange cross-reaction with myeloma protein and conventional antibodies, 687

Statement of Ownership, Management, and Circulation required by Act of 12 August 1970; Section 3685, Title 39, United States Code: The Journal of Experimental Medicine. Published monthly at 1230 York Ave., New York 10021, by The Rockefeller University Press, New York 10021. Editors: Zanvil A. Cohn, James G. Hirsch, Richard M. Krause, Henry G. Kunkel, Maclyn McCarty, The Rockefeller University, New York 10021. Owned by The Rockefeller University, New York 10021, nonprofit corporation, authorized to mail at special rates. Purpose, function, and nonprofit status of the organization and the exempt status for Federal income tax purposes have not changed during the preceding 12 months. Following statistics represent 12 month average and number nearest to date of filing: copies printed for each issue, 3860; sales through dealers, street vendors, counter sales, 0; mail subscriptions, 3521. Total paid circulation, 3521; free distribution, 71; office use, left-over, unaccounted, spoiled, 268; net press run, 3860. Single issue nearest filing date September 1974. (Signed W. A. Bayless, Director.)